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WOMAN'S HOSPITAL ISSUE



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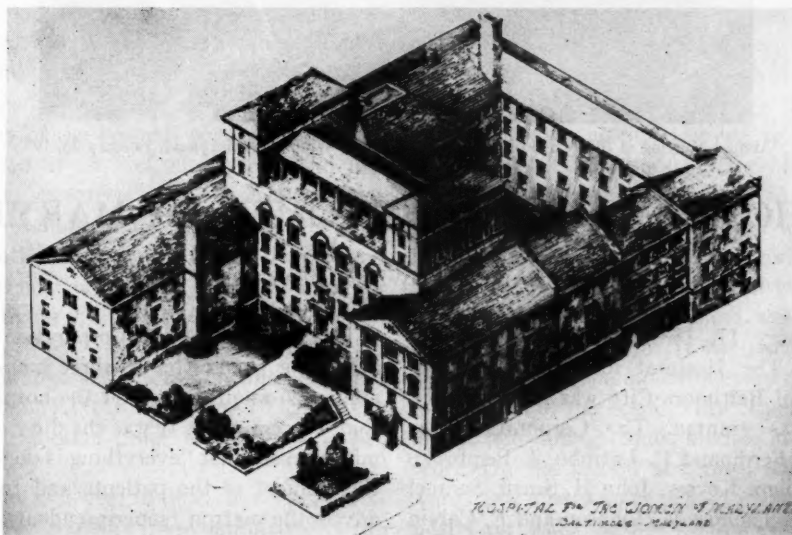
Medical and Chirurgical Faculty of the State of Maryland

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The Hospital for the Women of Maryland Issue



THE HOSPITAL FOR THE WOMEN OF MARYLAND

PREFACE

We, who are on the staff of the Hospital for the Women of Maryland, feel that we have been greatly complimented by being asked to furnish the scientific papers for the June issue of the MARYLAND STATE MEDICAL JOURNAL. We wish to thank the Editor of the Journal, Dr. George H. Yeager, for giving us this opportunity to report on some of the work being carried out at the Women's Hospital. An effort has been made to present papers dealing with subjects of interest to the doctors in general practice. As all of the scientific articles in this Journal have been written by physicians either on the visiting staff or the house staff of the Hospital for the Women of Maryland, it seems fitting that the first paper should be devoted to a short history of that hospital.

Leo Brady, M.D.

Chief of the Executive Committee



Annual Meeting of the Board of the Hospital for the Women of Maryland, January 26, 1955

THE HOSPITAL FOR THE WOMEN OF MARYLAND*

BARRY BOWERS, *Director*

On January 17, 1882, a corporation to be known as The Hospital for the Women of Maryland of Baltimore City was formed and a Charter was granted. The Corporation was formed by Ferdinand C. Latrobe, J. Pembroke Thom, William Keyser, John H. Scarff, Samuel G. Wyman, Thomas M. Johnson and E. Calvin Williams, for the purpose of "establishing, maintaining and conducting a hospital in the City of Baltimore for the treatment of diseases peculiar to women." The Corporation was managed by twelve directors of which J. Pembroke Thom was the first President. The By-Laws of the Corporation state that "the domestic concerns of the hospital shall be entrusted to a Board of Lady Managers, thirty-six in number." The thirty-six managers were elected from the first yearly subscribers, and were subject to approval by the Board of Governors before they could take office.

* History of the Hospital for the Women of Maryland of Baltimore City, 1882-1954.

The By-Laws of the Corporation authorized a Visiting Committee of three managers to be appointed monthly to visit the hospital not less than twice a week. It was the duty of this committee to see that "everything is done to protect the comfort of the patients and to assist and advise the matron (superintendent) to have all necessary funds for the maintenance of those under its control, and to keep a book of minutes to enter therein such observations as may be deemed useful, a report to be laid before the Board of Managers at every monthly meeting."

The Lady Managers recognized the importance of consultation between the Medical Board, the Board of Lady Managers and the Board of Governors and, therefore, they formed a Committee known as the Conference Committee which corresponds to our present Planning Committee. Interesting features of the original By-Laws of the Corporation, as adopted by the lady managers, include outlined duties for the matron, duties for the nurses, rules for patients

and rules for visitors. The ladies apparently felt that patients who were receiving free care should, if at all possible, earn this service by performing some duties within the hospital and incorporated in the By-Laws "patients on the free ward who, in the opinion of the attending surgeon, are able, shall assist in nursing and shall render such other services as the matron shall direct." It is also interesting to note that at the time of departure of a patient, the surgeons reported "that all the benefits which the hospital was designed to confer have been received, but the time of departure may at the discretion of the Board of Managers, be deferred one week." Perhaps this rule was made to avoid overcrowding the facilities.

The doors of the hospital opened in a rented house located at 25 McCulloh Street and had a capacity of seventeen beds. "Diseases peculiar to women" excluded patients suffering from any complaint other than gynecological, therefore no straight surgical or medical patients were admitted. Patients of limited means were charged from \$3 to \$6 per week, and beds were free to those unable to pay. Visitors were allowed in the hospital from 11:00 to 12:00 and from 4:00 to 5:00 and at no other times, only one visitor per patient.

During the first year of its existence, approximately thirty patients were admitted to the hospital and 500 were treated in what was then known as the "Outdoor Department."

In the second year of the hospital's existence, more than twice as many patients were treated than in the previous year, despite the fact that the hospital was closed during the months of July, August and September. The cost of operating the hospital in its second year was \$4,400. It is hard for one to realize that the hospital has grown to such an extent that it now costs more than a million dollars yearly to function.

The surgeons-in-charge of the hospital were Dr. William T. Howard and Dr. H. P. C. Wilson. The surgeon's report states "that the amount of benefit to be derived from an establishment is

limited only by its capacity." The report further stated that the surgeons hoped the "Board of Governors will, as soon as possible, provide some means of affording relief to the many suffering women who need treatment, but who cannot at present be accommodated."

The State Legislature at this time appropriated \$2,000 for use in the hospital. In addition to these funds many people in the City made donations of both money and materials. Material goods included such things as three bottles of Eickelberger Whiskey, 1 rocking chair, 1 half dozen oranges, home-made soap and two dollars on wages. These were itemized very specifically and credit given to their donors in the yearly report.

In 1886, the hospital moved to its present location. The funds for the new hospital were raised by a Charity Ball given in 1884. The ladies bought a house and added a wing thus increasing the accommodations from seventeen to twenty-five beds. The hospital was open for inspection for several days and was visited by large numbers of patrons. It was described in a local newspaper as "a model in every respect. The lower floors of the hospital are dispensary, committee and dining rooms, kitchen and matron's room. On the second and third floors are the wards and nurses apartments; all the rooms are neatly furnished, well ventilated and located as to be open to the sun." Another newspaper clipping said "It is the object of the Association to reach girls and women who are employed in stores, factories, etcetera, and who have no homes. These, by bringing certificates stating their inability to pay, will be admitted free of charge." This new building cost the ladies the sum of \$13,000 (which is incomprehensible in that today the cost of building one hospital bed with the necessary service areas is approximately \$15,000).

In 1888, the hospital, after two years of operation in the new building, was again enlarged, adding a new wing with dispensary and two wards. In the first ten years of operation, the

hospital had treated 1,142 in-patients and 10,186 "outdoor" patients. The dispensary at this time was located in one of the operating rooms. Some six hundred operations had been performed by this time. In 1889, the records indicate that the hospital had twenty free beds. In 1892, the Board of Lady Managers created an Honorary Board of Managers—to help with work, interest more people in work, and give an insight into the management of the hospital. The Honorary Board was composed of women from the various counties throughout the State. Their financial support was solicited.

The records show that in 1900 the hospital was given a telephone. It is hard to imagine how a hospital ever could function without a telephone (at the present time we have ten outside lines on the switchboard and 115 stations). The hospital rates remained at \$3 to \$6 per week until 1906 at which time they were advanced from that rate to \$5 and \$6 per week.

In 1908, an amendment was made to the Charter so that the hospital could "care for all kinds of surgical treatment of women." The year 1908 was a historic one in that it was the last year in which the hospital closed during the summer and provisions were made to receive patients each month of the year. The rates in 1908 were from \$7 to \$21 per week.

In 1909, the hospital was closed the whole year while additions were being made. These latest additions included the present southwest wing and two new operating rooms.

The hospital had a closed staff until March of 1910, at which time the staff was opened to all reputable surgeons. The Charter was also amended to provide "for the medical as well as the surgical treatment of women, and to establish, maintain and conduct, in connection with the hospital, a dispensary and a Training School for Nurses." The staff was greatly augmented which accordingly broadened the scope of the work. The new hospital now could accommodate sixty-nine patients. A pathological laboratory was established, making it unnecessary

for the hospital to send pathological specimens elsewhere for examination. One year after the creation of the new medical service, fifty-one medical patients were treated and sixteen obstetrical patients were delivered. This is the first mention of obstetrical patients being delivered at the Women's Hospital. In 1911, the hospital bought the property at 1413 Park Avenue and added a wing to the rear of this building. It was completely renovated, became the Nurses Home, and was connected to the hospital by a bridge.

In 1912, the Board of Directors elected to membership in that Body the entire Board of Lady Managers, and the former directors resigned. The men agreed to serve as an Advisory Committee. The ladies formulated new By-Laws and set their number of directors at fifty. At this time twenty-five per cent of the patients were free and the hospital was running a deficit of \$4,800 yearly.

In 1914, an Obstetrical Service was definitely established in a new wing on the north side of the present hospital. The department had twelve private and ten semi-private beds allotted for its use. In this new wing obstetrical facilities were built on two floors, each floor had its own delivery room, sterilizing room and nursery. Now the total capacity of the hospital was 114 beds. Operating Room fees in 1914 were from \$5 to \$10 and the delivery room fee was \$5. The reports indicated that the State of Maryland was contributing approximately \$10,000 per year to the hospital and in turn had the use of twenty-seven beds. The hospital was first approved by the American Medical Association for intern training in 1916; prior to this time there was a resident staff only.

The early hospital records show an increasingly imposing array of medical talent. The first pathologist was Dr. William T. Councilman who later became Professor of Pathology at Harvard University. He was succeeded by Dr. J. Whitridge Williams who resigned to become Professor of Obstetrics and later Dean of the Johns Hopkins Medical School. In 1907, with the death

of Dr. Howard, one of the original surgeons, Dr. John Mason Hundley, served as the professional leader of the hospital. During the years 1909 and 1910, a group of younger men were approached by the Board to reorganize the medical staff, since much of Dr. Hundley's time was being absorbed by his duties at the University of Maryland. In 1912, the professional control of the hospital was placed in the hands of an Executive Committee of the Staff. To date there have been seven chairmen of this committee:

Dr. Charles Riley	1912-1917
Dr. William Russell	1917-1919
Dr. Richard Follis	1919-1925
Dr. DeWitt Casler	1925-1937
Dr. John McF. Bergland	1937-1947
Dr. George Finney	1947-1951
Dr. Leo Brady	1951 to present.

The hospital operated for the next sixteen years with no noteworthy changes in its facilities other than a new clinical laboratory added in 1924. The service building was built in 1928; it provided facilities for nursing school classrooms, laboratory, dietetic instruction, house staff quarters, laundry and power plant. It was necessary to borrow \$100,000 to help defray the cost of this building and the mortgage was fully paid off by 1930.

During the late 1930's, it became increasingly evident that the physical facilities were inadequate. Therefore the Conference Committee was reactivated and the future of the hospital was seriously considered. Thought was given to moving the hospital from its present location to a lot located at University Parkway and St. Paul Street. The thinking of the Conference Committee was towards the establishment in this area of a medical center of which the Women's Hospital would become a part. The plans for the medical center did not materialize and it was decided to sell the property on University Parkway and to improve the existing facilities.

In 1939, a section of the hospital was razed and a new wing built which added many modern private rooms, a complete out-patient depart-

ment, pharmacy, administrative offices, operating and central supply rooms. The obstetrical service was increased at this time and forty beds and bassinets on the third floor were allocated for its use.

The School of Nursing was closed in 1954 after forty-three years of operation. It was becoming increasingly difficult to attract students and instructors to a small, specialized hospital such as Women's and, at the same time, it was no longer possible to provide the clinical facilities necessary to meet the current nursing school education requirements. Five hundred and eleven women had graduated from Women's during the school's existence.

The hospital now conducts a refresher program for graduate nurses who have been inactive professionally and wish to return to nursing. Thus, in a somewhat different way, the hospital is continuing to assist in meeting the nursing needs of the community.

During the seventy-two years of its life, the hospital has survived three wars, the Spanish-American, World War I and World War II, and the depressions of 1907, 1919 and 1933. The depressions apparently were an incentive because most major advances were made during these periods. The hospital now has over three hundred members on its medical staff, many of whom give generously of their time and effort in consultation and teaching. They have sustained the hospital at its present high level. It now serves the community to the extent of some 6,000 in-patient admissions per year, 16,000 out-patient visits and performs over 1,000 major operations yearly. The Out-Patient Department conducts clinics in Obstetrics, Gynecology, Surgery, Medicine, Diabetes, Dermatology and Sterility.

In just two more years the Women's Hospital will have completed seventy-five years of service. This unique institution has the reputation of rendering excellent hospital care in a home-like atmosphere, which was one of the intentions of the original founders.

The Board of Directors and the Executive Committee are the responsible groups for the hospital's activities. The Board of Directors, as in the past, is an active, interested and energetic group of women whose only desire is to provide the highest type of care in a small hospital. The Executive Committee of the medical staff, which is responsible for the professional leadership of the hospital, is a well coordinated

group whose efforts under the guidance of Dr. Leo Brady are untiring and progressive. Under the guidance of both of these groups, the hospital will certainly expand professionally and has no alternative but to continue to grow and to improve.

*The Hospital for the Women of Maryland
Baltimore 17, Maryland*

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BRICKER RESOLUTION HEARINGS WILL OPEN ON APRIL 27

The AMA Washington Letter 84-15

Hearings are scheduled to start April 27 on Senator Bricker's proposed amendment to the Constitution limiting the treaty-making power of the President. They will be held by the Judiciary Subcommittee on Constitutional Amendments, under the chairmanship of Senator Kefauver. The resolution, which has the strong support of the American Medical Association, last year missed the needed two-thirds majority in the Senate by one vote. Supporters of the amendment say that in the meantime there has been no significant shift in the lineups of groups favoring or opposing the proposal, and that the Administration still objects to the second point, which reads: "A treaty or other international agreement shall become effective as internal law in the United States only through legislation valid in the absence of international agreement." Of the 81 present senators who voted on the issue last year, 51 were for it and 30 against. There are 15 newcomers to the Senate, with the positions of several in doubt. The AMA will testify in support of the principle of the Bricker amendment. It favors a change because under present law it would be possible to *impose medical licensure laws, or even compulsory health insurance, through treaty alone, without enactment of domestic law.*

Scientific Papers

MATERNAL AND FETAL BLOOD BARBITURATE CONCENTRATION FOLLOWING OBSTETRICAL ANESTHESIA AND ANALGESIA*

WILLIAM V. LOVITT, JR., M.D., HENRY C. FREIMUTH, PH.D. AND WILLIAM P. ENGLEHART, M.D.

In 1950, Martland and Martland¹ reported a case of suicidal poisoning involving the ingestion of an unidentified barbiturate. The deceased was a twenty-three year old woman in her ninth month of pregnancy. Chemical examination, by an unspecified method, of the tissues of both the mother and the fetus showed a higher concentration of barbiturate in the latter. The authors, as the result of this single case, imply that it would be the normal process for higher concentrations of barbiturates to be reached in the fetal tissues than in the maternal tissues. This, they state, would follow since the detoxification and excretory mechanisms in the fetus are slower and less efficient than those of the mother.

Such "pooling" of barbiturates in the fetus was not demonstrated in the experimental work of Dille² who gave pregnant rabbits and cats anesthetic doses of amytal and barbital intravenously and then determined the barbiturate concentration in the fetal tissues and maternal blood. Although anesthetic levels were reached in the fetus, these levels were not significantly different from those of the mother.

Recently, we had occasion to investigate the death of a stillborn child of a mother who had received a total of 400 mg. of barbiturate as sedation during labor. This consisted of two oral doses of 100 mg. each of secobarbital given ap-

proximately 4½ hours before delivery and 200 mg. of pentobarbital sodium administered intravenously 1½ hours prior to the birth of the child. The mother developed circulatory collapse after delivery and the clinical impression was that she had been over-sedated. With this in mind, it was thought that perhaps the baby had attained significant concentrations of barbiturate in its tissues and analyses of the brain and liver were done. These showed barbiturate concentrations of 0.45 mg. % in the brain and 0.77 mg. % in the liver. Although these levels are below those associated with coma in adults, they do indicate appreciable absorption of barbiturate by the infant. This may have produced sufficient respiratory depression to have caused death. Unfortunately, we were unable to obtain a sample of blood from the mother to determine whether the barbiturate concentration was lower or higher in her tissues than in those of the fetus. However, since this case indicated possible danger to the fetus through the use of barbiturates, we undertook a study of a series of cases in which secobarbital and pentobarbital were used as analgesic or amnesic agents. Samples of maternal venous blood and cord blood from the infant were obtained immediately after delivery and these were analyzed to determine the barbiturate concentration.

METHOD

The method of analysis employed in this study is a modification of the ultra-violet spectrophoto-

* Department of Pathology (Dr. Lovitt) and Obstetrics (Dr. Englehart). Dr. Freimuth (Toxicologist, Office of the Chief Medical Examiner). This paper was read in part at the International Congress of Clinical Pathologists, September 1954.

tometric method described by Walker, Fisher and McHugh.³ That method resulted in a seventy per cent recovery of barbiturate from blood and an empirical factor was used in the final calculation of the blood barbiturate concentration to correct for this loss. The method could not detect less than 0.3 mg.% barbiturate in the blood. Our modification of the procedure permits the detection of 0.2 mg.% barbiturate and results in an eighty per cent recovery.

Using this method, the blood samples obtained as above described were analyzed. Samples of cord blood and maternal blood were obtained in twelve cases. The smallest dose administered to the mother was 100 milligrams of secobarbital given orally 3½ hours prior to delivery and the largest dose was 300 milligrams of tuinal given orally 4½ hours before delivery. Between these extremes there were intravenous doses of 100 and 200 milligrams given at intervals ranging from ½ hour to 8 hours before delivery. In only one case were we able to demonstrate any barbiturate in the blood of the mother. This was one in which 100 mg. of secobarbital were given rectally three hours before delivery and an additional 100 mg. were given orally two hours prior to the birth of the baby. The concentration in the blood in the mother was 0.21 mg.%.

The failure to find barbiturate in the blood of the mothers is due to the relatively low dosages used and the fact that the compounds used are rapidly destroyed by the body. These factors brought the barbiturate blood concentrations

below the minimum 0.2 mg.% detectable by the method employed.

In none of the samples of cord blood was the blood barbiturate concentration above the minimum detectable level of 0.2 mg.%. Thus, in the cases which we have examined, we have been unable to demonstrate any increased concentration of barbiturate in the blood of the baby as compared with the blood of mothers to whom the rapidly acting barbiturates have been administered as analgesic and amnesic agents. We propose to continue this study and particularly to obtain blood and tissue samples in stillbirths when barbiturates have been used prior to delivery. However, in the amounts employed in the cases so far studied, we do not believe that barbiturate sedation presents any danger to a normal, full term fetus.

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REFERENCES

1. MARTLAND, H. S. AND MARTLAND, H. S., JR., *Am. Jr. of Surgery*, **80**, 270-279 (1950).
2. DILLE, J. M., *J. Pharm. and Expt'l Ther.*, **52**, 129-136 (1934).
3. WALKER, J. T., FISHER, R. S. AND MCHUGH, B. S., *Am. Jr. Clin. Path.* **18**, 451-461 (1948).

CONGENITAL PNEUMONIA

A Clinical Summary

ALEXANDER J. SCHAFER, M.D., MILTON MARKOWITZ, M.D. AND ANTHONY PERLMAN, M.B., B.Ch.

Congenital Pneumonia is by definition pneumonia acquired by the fetus while still in the maternal generative tract. The disease may be initiated days or weeks before delivery or it may have its inception during some stage of labor. It may be recognized by its characteristic pathological picture (Macgregor¹, Potter²).

If death be caused by pneumonia while the fetus is in utero, giving rise to stillbirth, that pneumonia is undoubtedly congenital. If an infant be liveborn but dies of pneumonia within

the first 3 days of life, the pneumonia is probably congenital².

The excellent description of the pathological alterations in the lungs recorded by these and other observers will not be repeated here but several illustrative examples are appended. (Figs. 1, 2)

Incidence. In the Hospital for the Women of Maryland 76 autopsies were performed on stillborns and newborns who died within the first 3 days of life in 1951, '52 and '53. Pulmonary

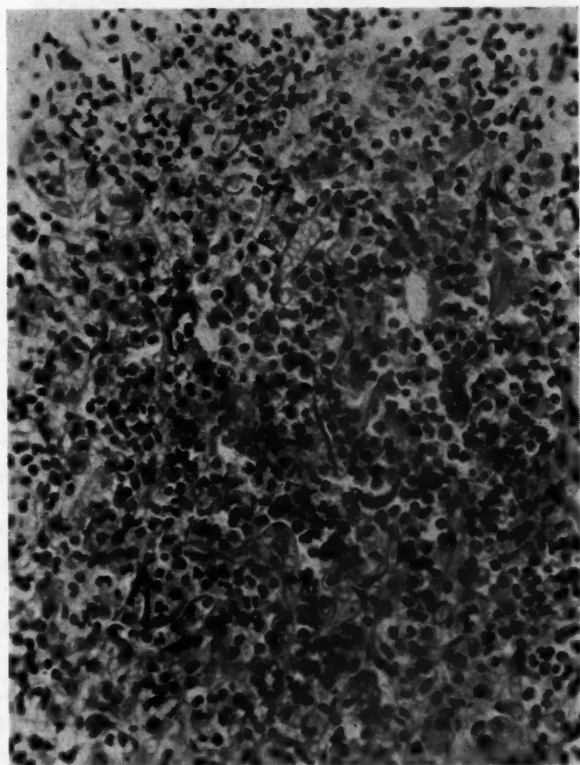


FIG. 1. Baby G. Microphotograph of lung $\times 300$. Stillborn after membranes had been ruptured 37 hours.

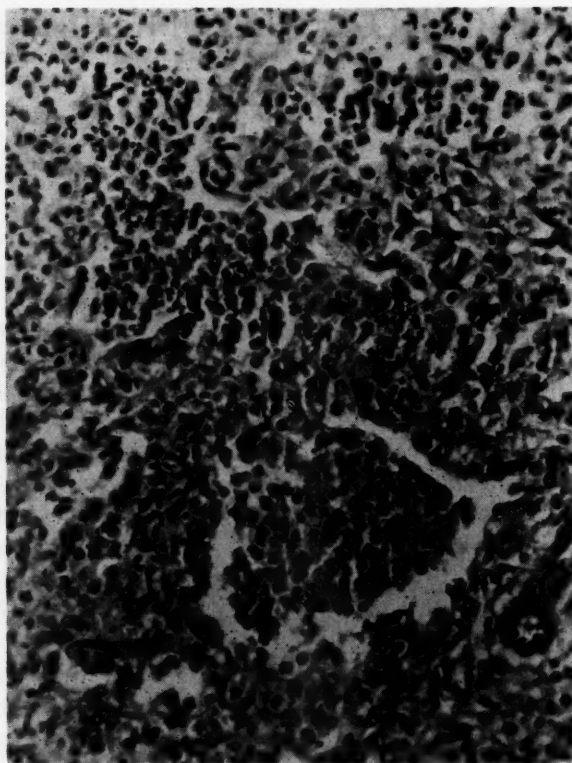


FIG. 2. Baby T. Microphotograph of lung $\times 300$. Normal pregnancy and labor. Did not cry or breathe spontaneously. Later respirations rapid, shallow, grunting. Became tense, muscular twitchings developed. Death at 60 hours.

inflammation of some degree was found in 27 (35%). In 7 (9%) it was considered of sufficient severity to have constituted a contributory cause of death. In 6 (8%) others it was the sole discoverable cause of death.*

Many surveys of perinatal mortality have been made and in all those which date from 1940 pneumonia has been found to be the cause of death in a surprisingly consistent percentage, varying from 6% to 9%^{3, 4, 5}.

The following conclusions were drawn from a careful study of the 13 severe cases in the Womens' Hospital material plus 15 comparable cases from the Johns Hopkins Hospital.† In all

28 cases detailed clinical notes were available as well as meticulous pathological reports.

Clinical Picture. Ten examples were culled from the total of 28 for this study of clinical characteristics. The rest were eliminated because they were stillborn, or because other lesions were found at autopsy which might have confused the symptomatic picture. Six of the 10 were full-term infants, 4 were premature. A detailed description of these, with illustrative case reports, is at present in press⁵.

In brief, these points were noted concerning the 6 full-term infants.

1.) All were sick at birth. Three showed characteristic asphyxia livida, 2 asphyxia pallida. The 6th. breathed promptly but was grayish and dusky in color. Breathing time in the others was delayed $2\frac{1}{2}$ to 10 minutes, crying was delayed or

* We are indebted to Dr. William J. Lovitt, Pathologist of the Hospital for the Women of Maryland for his painstaking review of these cases.

† Dr. Ella Oppenheimer, Associate Professor of Pathology of The Johns Hopkins Medical School, was kind enough to review this material for us.

never occurred. All had to be placed in some kind of resuscitating apparatus.

2.) The character of respiration was abnormal after spontaneous breathing was established. Respirations were rapid, in some as high as 100 per minute, and were usually shallow. In some expiration was grunting. Retraction was minimal to moderate, *never marked*.

3.) Cough was never noted.

4.) Physical signs were variable. In most, dullness to percussion, diffuse or localized, could be elicited. In most either rhonchi or fine crackling rales could be heard. Air entry in the majority was diminished, either over the entire lung field or in localized areas. Tubular breathing was never heard.

5.) Fever occurred in all the mature infants. In 2 it was low-grade, in 2 moderate and in the remaining 2 it was very high (103 to 105 F) throughout most of the course of the disease.

6.) Neurological complications were present in 4 of the 6. These consisted either of persistence of original flaccidity or of the development of hypertonicity and rigidity of all extremities and back. In some this was accompanied by muscular twitches and jerks, in one by frank convulsions. (None of these infants had demonstrable intracranial lesions at autopsy.)

7.) The heart failed in 2, as evidenced by cardiac enlargement, poor heart sounds and enlargement of the liver.

In the prematures who died of pneumonia the clinical picture was much less sharply defined. They were all tiny (1 to 2½ lbs.) and they all became deeply cyanotic shortly after birth. Unfortunately all were born outside the hospital so that we are not certain as to the details of their immediate postpartum breathing histories. None ever developed fever, the temperature being usually markedly subnormal. Respirations were first rapid and shallow, often grunting, but later became irregular, with periods of apnea interspersed. Several demonstrated the same neurologic abnormalities as did the mature infants.

Radiologic Picture. X-ray photographs of the chest demonstrate in the milder forms patchy



FIG. 3. Baby M. X-ray of lungs. Mother had hemorrhoidectomy 2 weeks before delivery. Labor normal. Color poor at birth. Rapid respirations, gray cyanosis, fever, dull percussion note, fine rales appeared. Death at 18 hours.

opacities concentrated about the hilus of the lungs, diminishing in number and intensity as they spread outward fanwise toward the periphery. One lung may be involved more heavily than the other but ordinarily the process is symmetrical. In the severest case we have seen both lungs are diffusely consolidated throughout with the exception of the extreme peripheral lappets, which are radiolucent and air-bearing (Fig. 3).

Differential Diagnosis. Intrauterine pneumonia must be differentiated from a number of morbid conditions which commonly affect the newborn. This task is rendered doubly difficult by the fact, demonstrable by post-mortem examination, that pneumonia often complicates many of these same conditions. The complicating pneumonia may be intrauterine in origin or it may be post-natally acquired.

Hyaline membrane disease in its pure and well-developed form offers little diagnostic difficulty. These infants are usually prematures, or, if full-

term, have been delivered by Caesarean Section. They are commonly well at birth and their breathing and crying times are not delayed. After a lapse of a variable number of hours respirations become rapid, but they early become labored, and this difficulty steadily increases. Before very long breathing is characteristically "pulling," with exaggerated inspiratory efforts producing marked sternal and lower costal retraction. Early in the disease excessive fullness of the chest and hyper-resonance to percussion are often striking.

All hyaline membrane disease, however, is not pure nor is it necessarily well-developed, and under these circumstances diagnosis is more difficult. There is often coexisting pneumonia, which may account for the fact that some of these infants appear ill at birth instead of demonstrating the so-called characteristic normal period of several hours. Milder forms exist in which deep retraction does not develop because obstruction is not sufficiently great. This is particularly true when mild forms occur in very small prematures who cannot or will not expend the great effort requisite for the production of deep retraction.

Atelectasis in its varied forms is a difficult topic to discuss briefly. In its *primary form*, as it occurs in the small premature, it is generally diffuse. The symptoms and signs it presents differ little from those produced by congenital pneumonia of the premature. A 2 or 3 lb. infant who is cyanotic from birth, who breathes rapidly and with slight retraction, whose percussion note is dull throughout and in whom air entry is generally poor, may have atelectasis alone or atelectasis complicated by pneumonia.

Lobar Atelectasis, on the other hand is easily distinguished. Here the localized dullness and crepitant rales point to a circumscribed area of consolidation, and the physical and radiologic evidence of mediastinal shift toward the consolidated area, plus elevation of the diaphragm on that side make up a characteristic picture.

Diffuse miliary atelectasis is a rare variant. It

is probably most often met as a part of the hyaline membrane syndrome but we have seen it in the absence of hyaline formation. Small foci of atelectasis are distributed throughout both lungs, but these are surrounded by areas of emphysema. The signs, and much of the respiratory difficulty, appear to be caused by the emphysema rather than by the atelectasis. The chest is overinflated and respirations are very rapid and somewhat labored. In the x-ray the ribs are horizontal, the lungs overexpanded, the diaphragms low. Miliary opacities are seen throughout.

Spontaneous pneumothorax is readily distinguishable from congenital pneumonia. The infants are usually well at birth but after a few hours suddenly become dyspneic and cyanotic. Signs are clear-cut and localized, and include unilateral hyper-resonance, diminished or absent breath sounds, lack of rales or rhonchi, and displacement of the heart away from the affected side. Part of the opposite lung is commonly atelectatic. Pneumothorax may be difficult to visualize under the fluoroscope but is easily seen in the x-ray.

A number of congenital malformations may be present with respiratory difficulty and cyanosis. These include *choanal atresia*, *tracheoesophageal fistula*, *diaphragmatic hernia* (as well as acquired *diaphragmatic paralysis*), *bronchiogenic cysts*, usually air-containing, *gastrogenic* or *enterogenic cysts* which contain fluid, and *tumors of the lung or mediastinum*. *Congenital lobar emphysema* is a rare and poorly understood condition to be differentiated. Careful physical and x-ray examinations usually suffice to separate these clinical entities but at times one may be forced to resort to bronchoscopy and bronchography.

It is exceedingly difficult at times to differentiate from the above group instances of *congenital heart disease*. In these tachypnea may be the earliest and the only abnormal finding and it may last for months before other manifestations appear which indicate the correct diagnosis. These

include the emergence of a murmur, cardiac enlargement or the unmistakable signs of heart failure.

The frequency with which neurologic abnormalities appear in neonatal pneumonia accounts for the fact that many of these are considered antemortem as examples of intra-cranial hemorrhage, or of brain damage due to cerebral anoxia. The findings of normal spinal fluid plus physical or radiologic evidence of pulmonary disease constitute suggestive, though not conclusive evidence that the symptoms are due to pneumonia. As stated above intra-cranial hemorrhage and neonatal pneumonia often coexist.

Prognosis. Congenital pneumonia has been considered by most previous observers to be invariably fatal². This is probably because the diagnosis has been made in the past only by pathologists. We have reported several cases in which the diagnosis has seemed almost certain, on both clinical and radiologic grounds, who have recovered⁶. We have no idea how many babies can be saved. We suspect that time of infection plays an important role in prognosis, that those whose infection began in utero days or weeks before delivery are less susceptible to treatment than those which began more recently in utero or during descent through the birth canal. The x-rays of several infants who recovered are appended (Figs. 4, 5, 6, 7, 8).

Treatment. The organisms most commonly discovered to have invaded the lungs are alpha streptococci, *E. coli*, other gram-negative bacilli and nondescript cocci. Pneumococci and Beta-streptococci are very rarely present. Usually infection is multiple. Consequently treatment with a single antibacterial agent such as penicillin has not appeared to be very effective. Indeed, penicillin alone may be harmful in that it may promote the growth of Gram-negative bacilli. The use of streptomycin and penicillin is probably superior, but we have been impressed with the greater effectiveness of the broad-spectrum antibiotics, aureomycin, terramycin and achromycin. Because these are not perfectly tolerated

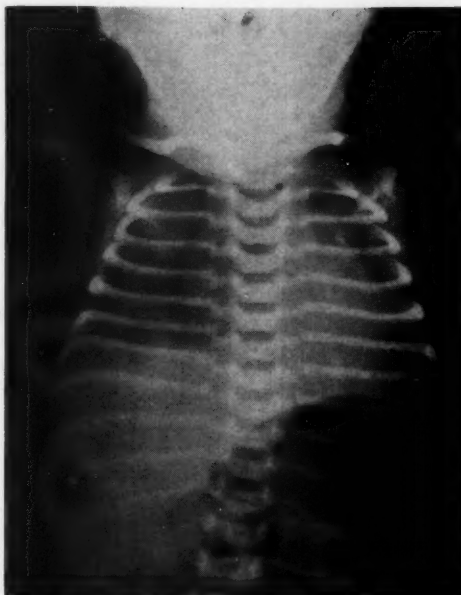


FIG. 4. Baby F. X-ray of lungs. 7 wks. premature. Normal labor. Dusky within $\frac{1}{2}$ hour after birth, respirations became rapid with some retraction. Marked dullness, fine crackling rales appeared. X-ray taken on 6th. day of life.



FIG. 5. Baby F. Same baby, 2 days later. Considerable clearing.



FIG. 6. Baby C. X-ray of lungs. Labor induced after membranes had been ruptured 4 days. Flaccid, cyanotic at birth. Respirations rapid and shallow, questionable signs in chest appeared. X-ray taken on 3rd. day.

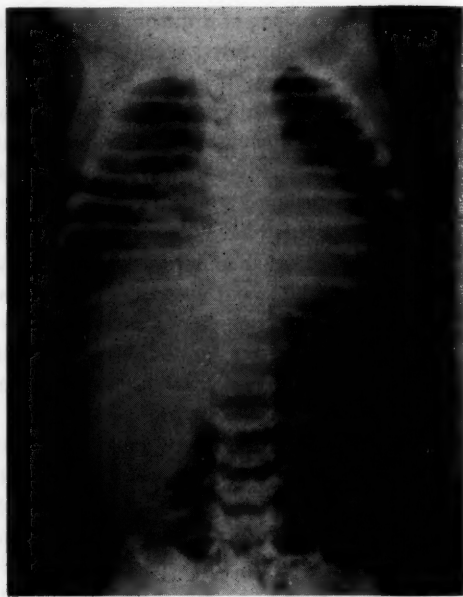


FIG. 8. Baby M. X-ray of lungs. Full-term infant. Mother had cholecystectomy in 5th. month of pregnancy. Forceps delivery in occiput posterior position, amniotic fluid meconium stained. Cyanotic shortly after birth, respirations rapid and grunting. Air entry poor to right lung, rales heard on 3rd. day. Improvement gradual thereafter. Discharged well on 9th. day, no further x-ray taken.



FIG. 7. Baby C. Same baby, 2 days later. Considerable clearing.

by the gastro-intestinal tract of the newborn we have preferred to use intravenous or intramuscular injection of a suitable preparation. Dosages commonly used have been penicillin 50,000 U, streptomycin 25 mgs., and one of the 'mycins 25 to 50 mgs., every 6 hours. We are not certain as yet that these are the proper amounts or exactly what is the ideal combination of drugs.

Prevention. Study of the factors which predispose to infection of the fetal lung reveals that the disease commonly affects three groups. Infants born 1.) after certain complications of pregnancy or labor, chiefly maternal bleeding, toxemia, breech presentation and mid-forceps extraction, 2.) after prolonged interval between rupture of membranes and delivery, 3.) very small prematures seem particularly liable. Excellent obstetrical care has undoubtedly reduced the number of congenital pneumonias already

and is a *sine qua non* for reducing this figure to a lower level. Antibacterial treatment of mothers whose membranes rupture prematurely cannot be proved to have forestalled fetal pneumonia, but its more vigorous use is strongly recommended. All babies who are born after any one of the obstetrical complications listed above, and all small prematures (weighing perhaps 4 lbs. or less) should be treated prophylactically with streptomycin and penicillin for several days, beginning shortly after birth. At the first sign of respiratory difficulty a broad-spectrum antibiotic should be added, while efforts are made to determine the exact cause of that difficulty.

Summary. Congenital pneumonia may be diagnosed on clinical and radiologic grounds, if the possibility is constantly kept in mind.

Its clinical picture includes respiratory difficulty at birth, delay in breathing and crying time, accelerated respiration without marked retraction, variable physical signs. It is unaccompanied by cough.

Many of these infants demonstrate persistent flaccidity or rigidity with muscular twitchings.

X-rays show a fairly characteristic distribution of shadows.

Congenital pneumonia is not necessarily fatal. Prevention rests primarily in skillful obstet-

rics. Vigorous antibiotic therapy of mothers whose membranes had ruptured prematurely will probably, although not surely prevent a certain number of cases.

Antibiotic therapy of the infant, in order to be effective, must be begun early, at the first suspicion that pneumonia might be present, and must be intensive.

Both the pediatrician and the obstetrician must develop a greater awareness of this condition if we are ever to fill the gaps in our knowledge which now exist.

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BIBLIOGRAPHY

1. MACGREGOR, A. R. Arch. Dis. in childhood. **14**: 323-51, 1939.
2. POTTER, E. L. Pathology of the fetus and newborn. Year Book Publishers, Chicago, 1952, pp. 252-7.
3. D'ESOPPO, D. A. AND MARCHETTI, A. Am. J. Obs. and Gyn. **44**: 1-22, 1942.
4. POTTER, E. L. AND ADAIR, F. L. Am. J. Obs. and Gyn. **45**: 1054-65, 1943.
5. LABATE, J. S. AND DICKSON, W. S. Med. Clin. of N. Amer. **739**-48, May 1951.
6. SCHAFER, A. J., MARKOWITZ, M. AND PERLMAN, A. J.A.M.A. In press.

ANESTHESIA—A COOPERATIVE ENTERPRISE*

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Much has been written in the past five years concerning the proper organization of departments of anesthesia in hospitals, with the purpose of arriving at a working arrangement, which would be favorable to physician specialists and the hospital, and, most important, to the patient. It is not my purpose in this article to become involved in the manifold ramifications

of this controversial topic. Suffice it to say, that rather clear-cut requirements have been agreed upon as they apply to the teaching hospital on the one hand, and the smaller private hospital on the other. As a result of the fundamental thesis that the most desirable type of organization is the one, which provides effective patient care, without being influenced by other less important, and frequently damaging, considerations, the present situation as it pertains to

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anesthesia at the Women's Hospital was evolved. Without definitive planning, but with a remarkable spirit of cooperation between the physicians and hospital management, the so-called "present situation" has most of the characteristics deemed ideal for anesthesia departments of private hospitals. It is well to emphasize the word *cooperation* in this instance, because this virtue has been characteristic of the Women's Hospital and its personnel.

The organization of anesthesia coverage is relatively informal at the Women's Hospital and does not constitute what could correctly be called a department. The personnel of this organization comprises all physicians practicing privately in the city of Baltimore, and enjoying the hospital privilege in the specialty of anesthesiology. Such privilege has been obtained through standard procedure and no contract or monopolistic arrangement, benevolent or otherwise, exists between hospital and physicians. All other physicians, practicing this specialty, have equal right to apply for, and will probably receive, if qualified professionally, such privilege. Since all groups of specialists, working together in the same endeavor, should have a spokesman, a departmental head of anesthesia was appointed. Problems concerning policy, equipment, educational programs, etc., are usually presented to him, and after informal discussions with the other members of the anesthesia staff, solutions and conclusions to the problems, or requests by the anesthesia staff, are delivered by him. At no time during my experience at the Women's Hospital has an edict been delivered to the members of the anesthesia staff by the head of the department.

Actual administration of the anesthetic techniques is carried out by the members of the staff, who regard themselves, and are considered by the operating surgeons as an integral part of the team whose prime consideration is the welfare of the patient. Assignment to each case is accomplished by the admitting officer, acting upon the request of the surgeon. Personal pref-

erences by surgeon or patient are adhered to meticulously, whenever the schedule of surgeon and anesthesiologists permits. It is fortunate, however, that the calibre of the individual anesthesiologists permits considerable latitude in scheduling cases, since substitution, when individual preference cannot be met, constitutes no problem. After assignment has been made, the assigned physician anesthesiologist usually carries out his initial responsibility to the patient by a preoperative visit, at which time patient and clinical records are examined, and type of anesthesia is decided upon and discussed with the patient, and when required or desirable, with the surgeon. Instances have occurred when the anesthesiologist has felt a postponement is indicated, and a conference with the surgeon has resulted in a rescheduling of the case, pending proper further preoperative preparation. Such instances tend to demonstrate the presence of, and the need for, the spirit of cooperation so prevalent here. Type of anesthesia, for the most, is left entirely to the judgment of the anesthesiologist. Patient and surgeon preference help to decide the type of anesthesia, but clear-cut indications dependent upon operative procedure and the patient's physical or emotional status are the chief deciding factors. Discussion with surgeon and patient, for the most part, results in a completely satisfactory final decision for the three principals involved. As a result of this spirit of teamwork, the anesthesiologist is frequently made aware of particular problems concerning the patient many days or weeks before the date of operation, and these problems can be approached with all variables worked out well in advance. In addition to conferences with patient and surgeon, the anesthesiologist also feels free to discuss problem cases with other anesthesiologists. Because of the varied backgrounds of the individual anesthesiologists, opinions may differ as to the proper management of the case, and constructive criticism requires that all of the members of the anesthesiology staff remain abreast of changing trends, rather than

settle into a static pattern of routine. This condition also results in a searching evaluation of the actual outcome of the case, of benefit in future similar problems.

Post-operatively the patient is primarily under the supervision of her surgeon. However, suggestions by the anesthesiologist pertaining to particular physiological aberrations are welcomed or requested by the surgeon, so that this period also frequently becomes a cooperative venture. Patients are returned initially to the recovery room, and during her sojourn in this area, the anesthesiologist follows her condition closely, either through his immediate presence, or by information from the recovery room nurses. If the schedule of the anesthesiologist takes him to another hospital, he may refer the immediate follow-up to another anesthesiologist, who is remaining in the hospital for a longer period of time. When the patient's condition permits and recovery from the anesthesia is complete, she is returned to her room. Frequent post-operative visits then keep the anesthesiologists informed of the recuperative progress until the patient leaves the hospital. During this time complications or sequelae from the anesthetic procedure may be treated.

It has been my experience that a thing well done has usually engendered interest in that subject. Such has been the effect of competently performed anesthesia at the Women's Hospital insofar as the interest in this specialty on the part of the house staff is concerned. Also, it is an occasionally forgotten assumption that the indigent or free patient warrants as complete care as the patient who can afford to pay for medical service. The house staff of the Women's Hospital has demonstrated an interest in learning the fundamentals of anesthesia technique and has requested training in these techniques at the operating table and in the lecture room. They receive a series of eight lectures at the beginning of each year by the members of the anesthesia staff, these lectures dealing with technical problems and procedure. At the same time

the surgical residents perform anesthetic procedures under the supervision of a qualified staff anesthetist. As their experience increases, more and more of the free work is done by the house staff, with direct or easily available consultation as needed. Problem cases or extreme major surgical cases are scheduled in advance with a staff anesthesiologist, who administers the anesthesia himself, or sits in on the case. Such a program can be carried out only with cooperation of the house and anesthesia staffs working together, and with the integration of time schedules in advance. This approach to the free case has produced dual benefits; first, the patient has received satisfactory anesthesia as to type and administration; second, the surgical resident has gained proficiency in the administration of anesthetic agents of various types and by varied routes, and has an insight into the anesthesia problems involved in the patients, whom he will treat in the future.

The successful functioning of the anesthesia group has had its effect upon the surgeons, who bring their patients to the Women's Hospital, and upon the members of other specialties. The confidence, which has been evidenced concerning the capabilities of the anesthesia staff, makes it possible for the surgeon to proceed with the operation at hand without concern for the possible mishaps at the head of the table. Recognition of specialized knowledge concerning administration of potent drugs and resuscitative procedures has produced several joint meetings between the anesthesia staff and various other groups of the medical staff. Consultation with individual anesthesiologists for therapeutic and diagnostic procedures is occurring with greater frequency. It is hoped that with the influx of more qualified anesthesia personnel into the city, the day will come, when the many problems peculiar to obstetrics and infant resuscitation can be given greater attention, with coverage given to those patients, whose physician attendants have been so appreciative of the time, which has been given them. The administration of the hospital under

Dr. Merrill Stout in the past and under Mr. Barry Bowers at the present time, has done much to bring about the present satisfactory conditions in anesthesia, by recognizing the need for competent anesthesia, and supporting this need, without being unduly influenced by the desire to realize a large financial gain from the performance of this department. It has been said that the hospital, which enjoys a large financial profit from the anesthetics administered, is either charging the patient more, proportionately, than the value received, or is compensating anesthesia employees inadequately. Such a situation is unlikely to occur at the Women's Hospital, where the successful outcome of each patient admission receives first consideration.

Previous discussion has primarily limited itself to the actual functioning of the anesthesia staff, and to the effect of the latter upon the patient and other members or groups within the

hospital unit. In addition to these effects the anesthesiologist experiences great benefit from such agreeable conditions. He finds that he can practice his specialty in the manner best suited to increase his efficiency. Since few restraints are placed upon his choice of anesthesia and the method of its administration, he is able to perform his duties in the way, which he knows best. As a specialist in private practice, he is more likely to give personal attention to the problems pertaining to the successful outcome of his patient, inasmuch as the final result directly determines the success or failure of his professional career. The role played by the Women's Hospital and its medical staff in encouraging the development of anesthesiology as a cooperative enterprise, has greatly accelerated the advance of an infant specialty to its maturity.

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CONSTIPATION AND THE INTERNIST

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The purpose of these remarks is to try to develop interest and understanding, which apparently seems to be lacking, among internists regarding the importance of this clinical condition. They contain no cure for this malady but are an attempt to outline a management programme which may help us to understand better the patient's problem of constipation and in turn to instruct the patient what constipation really is, the serious part he must play in the programme, and that taking a laxative is but a small part of the treatment.

The first step in this understanding comes in the form of establishing whether we are dealing with a long-lasting chronic type of constipation or a fairly recent one which has developed sud-

denly in an otherwise normal individual. The last named we will not discuss at this time, and can dismiss by saying that the diagnosis can usually be established by digital, sigmoidoscopic and x-ray examination. The next step is to define constipation. In consulting Webster's dictionary and many texts I am left hopelessly confused, and I am sure the patient would be even more so. Consequently I feel it would be wasting your time to read any of them.

To me a definition of constipation would be to consider it as a change of bowel rhythm. A disturbance in function may manifest itself first, as a change in rate of flow, that is, either diarrhea or constipation; second, as a change in the character of the contents, that is, an increase or decrease in fluids; or third, by the presence of blood, mucus, or pus. It would be well to re-

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member that the spastic colon may result in either diarrhea or constipation. Perhaps the best definition of constipation can be summarized in one given by the late Dr. William R. Houston¹, and I quote: "Constipation is the colonic manifestation of a psychoneurosis."

When a patient consults us we should for the most part take his word for what is wrong with his bowels. This is his story, as he sees it and a most important point in history taking. If the patient is mildly constipated that usually means insufficient quantity of feces. Then there will be a certain number of patients who are having one or two perfectly adequate bowel movements a day and must be convinced they are not constipated. At the same time one must remember the patient who regards himself as constipated because he takes a physic daily and in truth is really suffering from a "self-induced diarrhea."

Then there are those patients who have an abnormal fear reaction toward constipation largely induced by what they read about it in street car ads, what they hear over the radio, and chiefly what they read in some of our best medical journals subscribed to and found on our living room tables, telling of the terrible things that happen to people when they are constipated. They are told they are full of poison, their liver is not working properly, they are sufferers from autointoxication. This gross misnomer has been heard by all of us. All these and many more. They begin to believe and worry about it. It is because of this self-developed fear that they usually listen to the fairy stories, take laxatives or cathartics for months, even years, before seeking expert help and most often it is then too late.

These sufferers are hypochondriacs who have their own idea of a normal stool as to size, number, shape, color, and consistency, and they must learn that such a standard does not exist. It would be wise for them to learn to follow the example of the dog instead of the cat and never look behind them.

It can be definitely proven that chronic spas-

tic constipation is 75% a psychogenic problem conceived by laziness and raised on fear and ignorance with much support furnished by the press and our never failing drug propaganda. To elaborate further on the question of drug propaganda we all see at times a number of alcohol addicts who are frowned upon by society, yet let us not forget for each alcohol addict we have 1000 hardened drug addicts for constipation.

For clarification chronic spastic constipation can be broken down into two main stages: the catarrhal, which is usually associated with gas, abdominal distention, and semi-soft or liquid stools over a period of years, due to constant catharsis. If proper measures with respect to diet, habit and medicinal management are not instituted, the condition will develop into the second stage or chronic spastic constipation, with not only gas but a great deal of pain, which is aggravated by coarse food, purgatives, and enemas.

To these two stages, I am sure that many would add a third, or perhaps call it "NO. I," namely: Atonic Constipation. By this they would mean the first stages of a long-standing constipation where the patient takes considerable laxatives and is not disturbed by either gas or pain. It is my feeling that atonic constipation is very, very rare except in debilitated people who are in bed for some chronic disease. The literature is very confusing as to the meaning of the terms ATONIC AND SPASTIC colon in relationship to constipation. Some go so far as to say there are no atonic colons except for a few congenital anomalies. Otherwise the colon is always spastic in constipated persons. The groups we have just mentioned usually carry the patient for 20 to 25 years of his early life and by the time he has asked for help he has a well-established spastic constipation. It would be well for the internist to bear in mind that 90% of the gas and pain found in patients with chronic spastic constipation is the result of too much catharsis.

The emodin group of drugs is particularly prone to produce these two symptoms.

It is an accepted fact that man has five senses—sight, taste, feeling, smelling, and hearing. To these I think should be added elimination, which is nothing more than a powerful sympathetic stimulus to the lower bowel, which when strong enough causes a desire to evacuate. This reaction seems to me to be no different from those associated with a child learning to live by hearing, seeing, etc. When the stimulus is ignored day after day, coupled with the fear and worry complex already described, you have graduated a chronic constipated patient "cum laude." After said patient has exhausted all remedies other than those which can be given by a physician, then he appears in your office and in mine and pours out his trouble to us and asks to be cured quickly.

Some of these angles may be somewhat overdrawn, but basically they are true.

Now the graduate comes to his advisor for help and you must be prepared and ready to give aid. Before speaking on the type of aid, I should like to list a few of the causes of chronic constipation:

1. Fear.
2. Nervous strain.
3. Worry.
4. Postponing defecation.
5. Faulty diet, which would include eating too little in amount, insufficient roughage, overeating and under exercising, the drinking of too little water and finally,
6. The abuse of laxatives. (Drug addiction.)

To supplement what has been said regarding the part fear and worry play in chronic constipation, remember they usually start at an early age and unfortunately this is done by unsuspecting parents who think they are doing the right thing in making their child's bowels move daily. Nervous strain and tension play a tremendous role in constipation. The chatter box, carefree individual seldom is ever constipated, while the tense individual working under pressure produces a tensing of the muscle all over the body, especially around the rectum making it difficult for the

feces to come down and to start the chain of reflexes which we call defecation. A well known internist from the West recently spoke in Baltimore and told of a young woman, illegitimately pregnant, who, due to this mental panic, developed an acute ulcerative colitis. So we occasionally see the patient with a condition resembling intestinal obstruction but brought on by some great psychic strain.

Among the laity postponing defecation is probably the best known of all the causes for chronic constipation. Suffice it to say that not to obey the urge because you have to get to work, catch a train, or wait on a customer, will in a short time destroy the reflex stimulus to the rectum, and the rectum will, in turn, disregard the presence of the feces and the patient will have to resort to laxatives and enemas.

Faulty diet and its component parts can only be mentioned because of lack of time but I would sincerely advise all those interested in this problem to explore the literature for details of this important point in therapy.

The abuse of laxatives will be mentioned under TREATMENT.

Results of Constipation: Internal and external hemorrhoids, Anal Fissure, Rectal Fistula, Rectal Prolapse, Neurasthenia, Psychosis, Emotional Inhibitions, Anxiety State, and Obsessions.

A Sense of Bad Feeling: In certain persons with a sensitive nervous system, distention of the rectum or lower end of the colon can produce nervous irritability, headache, and a feeling of intoxication. Mental activity is slowed and made difficult, insomnia, weakness, and anorexia develop. These feelings usually disappear the minute the rectum is emptied, which shows that the mechanism producing the symptoms is a mechanical and a nervous one and not a chemical one.

Migraine: Attacks of migraine can be brought on by constipation and there are a few cases in which keeping the colon clean almost cures the disease.

Diarrhea: In some constipated persons the

stagnating feces eventually rot and become fluid. With this, there is so much irritation of the colon that the muscle contracts powerfully and the patient suffers for a few days with diarrhea. Then constipation returns. In occasional cases when a patient lets his bowels go for a week without a movement, shallow stercoral ulcers probably form in the cecum to produce pain and perhaps diarrhea.

Anal Distress Due to the Passage of Hard Fecal Masses: The passage of large, hard, fecal masses with an irregular surface will in many persons produce fissures in the anus, or will bring on attacks of inflamed or thrombosed hemorrhoids.

Mucous Colics: In many sensitive persons with an irritable type of colon, constipation can be one of the causes of attacks of mucous colic.

TREATMENT

Twenty-five or thirty years ago the treatment of constipation was a comparatively simple procedure.

Depending on where the patient was treated usually determined the kind of medicine received. In the army it was CC pills, on the wards Cascara, or Salts, in our offices usually the latest laxative detailed, and for the child, something that tasted nice, which pleased the parents as well. No thought was given as to whether the Cascara gave a well-formed or liquid stool, plus gas and pain, or the sodium radical when used, altered the blood chemistry, and finally that forty per cent of magnesium sulphate used as a purgative is absorbed rapidly and increases the blood magnesium level in nephritic patients.

Medicine has come a long way since those "horse and buggy days."

In the early thirties papers began to appear in our journals and meetings telling us about the great nervous disturbances, such as psychoasthenia, neurasthenia, psychoneurosis, complexes, fears, and anxiety states, and their effect upon digestion and elimination. This is better known today as Psychosomatic Medicine.

Now for a suggestive management outline in chronic spastic constipation.

The overall picture should be considered from three standpoints. First, the psychosomatic side, second, the giving of no laxatives at all and third, one which combines the above two, plus the wise use of cathartics.

Time will not permit a real outline of the important part nervous strain, worry, domestic, and social problems play on the physical well being of the patient, and in turn what direct effect they have on creation of indigestion and bad elimination.

So in history taking where one of the major complaints is constipation there is a lot more to be considered than simply taking a nightly pill. One must question the patient as to his elimination habits from early childhood on, so as to find out if possible what the attitude of his parents was in regard to the necessity of a bowel movement every day, which is a very erroneous idea. The fear instilled into a child's mind by the parent for the need of daily evacuation may do a lot of harm in the years to come. Again, question if the patient's bowels move on vacations or weekends and if he becomes constipated upon going back to the tension of work.

Many physicians state that they never give laxatives under any circumstances. A wonderful solution to a troublesome problem, if it worked in all cases.

This concept relating to constipation is not new, for twenty-three centuries ago Hippocrates wrote in one of his aphorisms: "Persons in good health quickly lose their strength by taking purgative medicines." He resorted to whole meal bread as a laxative food. Celsus said: "Physic is not always good for the sick, but is always hurtful to the healthy." He advised drinking large amounts of hot water as a laxative. Asclepiades was opposed to the use of violent remedies and especially condemned the excessive use of purgatives and enemas. He introduced music as a soothing agent and advised frequent bathing and massage.

Thus, the basic principles upon which modern rational therapy depend for treatment of consti-

pation were established many centuries ago by the great masters in medicine. They emphasized the detrimental results of the injudicious use of purgatives, the harmful effects of enemas, the importance of suitable diet, the value of plenty of fluids, the benefit of hydrotherapy (baths), physiotherapy (massage), and psychotherapy (music).

Modern phraseology is best summarized by Goodman and Gilman² and I quote: "There are only a few instances in which the use of cathartics is indicated. Contrary to popular belief, constipation does not constitute one of them. The continual use of cathartics is a most harmful practice and may provide the basis for serious gastro-intestinal disturbances, including spastic colitis, dyspepsia, reflex gastric complaints and many functional ills."

We are all agreed, I am sure, that those patients who have been taking laxatives all their lives should stop this treatment immediately and see what their bowels will do without artificial stimulation. Sometimes to everyone's surprise they will move very well. However, what about the patient who cooperates to the point of letting his bowels go unmoved for several days and begins to feel badly with headache, nausea, and gas pains. It is reasonable to assume that at this point he will without consulting the doctor resort to enemas or laxatives for the relief of his bad feelings.

Patients must be convinced that it is not essential to have a bowel movement every day which carries with it also the fact that all the refuse from one day's food intake does not have to leave the bowels in 24 hours. It is nothing unusual for a person not to have a bowel movement but once in six or even more days and feel perfectly well. Therefore, it would seem that when the prescribed treatments for constipation, such as dietary regulations, extra fluid, bulk factors, and psychotherapy have failed, and these patients have taken laxatives regularly, it would be much wiser to withdraw the drug gradually, either in frequency or amount, and the patient

would probably feel better and cooperate more earnestly.

It is often stated by the patient that his bowels move with the first cigarette in the morning. A practice, if it works, which should not be interrupted. Another important point in the treatment of constipation is the establishing of a daily habit of going to the toilet at a certain time. In a great many cases the bowels can be educated and the rectal stimulus reborn.

As to drugs, it would be a wise procedure if the majority of the remedies known to man were discarded and only retained in our pharmacopae for their historical value. However, laxatives as a group of drugs are indispensable and serve a most useful purpose in selected cases in which they are indicated. Every physician should include in this inventory of laxatives one or two of the well-known laxative chewing gums, magnesium sulphate, milk of magnesia, di-sodium phosphate, cascara in the form of tablets with the possibility of castor oil in selective cases. Phenothalein is very effective but at the same time a strong irritant, and should be used as little as possible because of the difficulty in regulating the dosage and its unpleasant side effects.

These remedies should be studied carefully as to their physiological action and the physician should familiarize himself as to their dosage. More good can usually be derived by regulating the dosage than by changing to another drug every time the patient is seen. As has been stated before, most discomfort encountered by the patient, such as gas pains, and the feeling of fullness are more apt to be due to overdosage than to the type of drug given. It is, therefore, very essential that no drug be prescribed for constipation without telling the patient what he may expect as to the character of stool or the length of time he may continue the drug. A great deal of harm can be done by prolonged use of laxatives. Therefore, constipation, through the use of cathartics, becomes organic in nature and requires a well organized plan of treatment, con-

trary to functional constipation, which is simple to correct if early recognized.

In closing I should like to quote from an article by Doctors Beck and Kroll³ entitled: "The Indiscriminate Use of Purgatives in Constipation," and I quote: "Unquestionably, in simple constipation (a condition of faulty habits and not an actual disease) self-medication on the part of the laity and negligence through apathy and indifference on the part of the profession often lead ultimately to organic changes with resultant chronic invalidism and disability. Unless this tendency is more generally recognized

and more vigorous efforts made to correct it, the evil will continue to prevail and cause much needless human suffering."

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REFERENCES

1. HOUSTON, W. R. The art of treatment, the Macmillan Company, New York City, 1936.
2. GOODMAN, L. AND GILMAN, A. The pharmacological basis of therapeutics, the Macmillan Company, New York City, 1941.
3. BECK, HARVEY G. AND KROLL, LOUIS J. The indiscriminate use of purgatives in constipation, University of Maryland Bulletin, Vol. 27, No. 3.

CANCER OF THE CERVIX*

LEO BRADY, M.D., GERALD GALVIN, M.D. AND FREDERICK ZERZAVY, M.D.

When in 1949, I became the head of the Gynecological Department of The Hospital for the Women of Maryland, one of the first decisions I had to make was how to treat patients with cervical carcinoma. In some clinics irradiation is emphasized while in others surgery is carried out whenever possible. Some of those preferring surgery supplement it with pre-operative radium and post-operative deep x-ray. Whatever method is decided on is usually adhered to rather strictly, so as to provide statistics to indicate what is being accomplished and perhaps to influence the treatment of carcinoma of the cervix in other clinics. In other words, not only is the individual patient treated, but also a clinical investigation is carried out. I am not criticising this for there is still much difference of opinion among even the highest authorities as to which is the best treatment to follow and it is extremely important that the questions involved be answered as soon as possible.

It was at once evident to me that while many women with cervical malignancy are treated at

the Women's Hospital the number is not sufficiently large for any results we might obtain to influence the treatment of this condition in other hospitals. Hence, I decided not to have any routine method of therapy. Instead we have considered in each case the patient's age, the number of children she has had, her general physical condition, the presence or absence of obesity, the extent of the lesion clinically and the microscopic findings and on the basis of these and other factors, we have outlined for each patient what in our opinion seemed the best treatment for her. I write "our opinion" because at the very beginning of my term at the Women's Hospital I persuaded Dr. Gerald Galvin to take charge of radium therapy at our Hospital and he is helping me in the making of this report. Many of the service patients have been examined by both Dr. Galvin and myself. We have together attempted to evaluate the reports of the Papanicolaou smears and have examined microscopically with Dr. William Lovitt, our pathologist, biopsies and specimens obtained by sharp conization. When deep x-ray was used, it was administered under the supervision of Dr. DeWitt

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Firor who is in charge of Roentgenology at the Women's Hospital.

All of my six residents including Dr. Fred Zerzavy, the present one, have joined in this work as have also all the members of the house staff. In fact, Dr. Zerzavy has played such a major role in compiling the statistics that this report is coming out jointly under his name, Dr. Galvin's and my own. While the senior author has assisted at the radical Wertheim procedures all of the operations except for seven on his own private patients have been performed by residents.

Routine Papanicolaou smears have been taken on all new gynecological patients in the dispensary and the tremendous value of this will be shown in a separate article from the Women's Hospital by Dr. Raymond Markley. However, while endeavoring to detect cervical malignancy in its earliest stage we nevertheless try not to increase the tremendous amount of cancerphobia which exists in women at the present time. We never lie to a patient. Once a woman suspects her doctor of doing this she loses all confidence in the medical profession. However, we try to avoid using the word cancer and we are constantly being surprised at how seldom it is necessary to tell a patient that she has a malignant growth. Even when patients know the entire truth it is our impression that many of them prefer not to discuss it by name. It is only when a patient fails to co-operate that we feel it is our duty to impress on her the seriousness of the condition and the danger of delay. Cancerphobia is a terrible disease. One patient who had had a little bleeding and was advised to have a curettage began at once to sell all her belongings so as to make it easier for her family when she died. This is, of course, an extreme example, especially as the patient did not have cancer, but emphasizes the point we are trying to make.

We have treated seventy-two patients with cervical malignancy, not a large number compared with those treated in the larger clinics. Hence, we realize that conclusions or even impressions drawn from this report are subject to

the criticism of insufficient statistics. Nevertheless, a report from a hospital the size of ours may have some special value as it indicates what other hospitals of our size can expect to accomplish.

We divided these seventy-two cases of cervical malignancy into five groups according to the extent of the lesion following the international classification. Twenty-nine showed only pre-invasive carcinoma or carcinoma-in-situ and hence we placed them in group 0. In twenty-six we thought the lesion was limited to the cervix and hence should be considered as in group 1. Actually in four of the twenty-six some invasion of the parametrium was found in the removed specimen making them in reality stage II malignancies but as impression on pre-operative examination, not pathological study of removed specimens is used for classification we are considering all twenty-six cases as being in class 1. There were only five women with stage II lesions, but eleven with the even more extensive growths, placing them in group 3 or 4.

It is encouraging to us that in a hospital like the Women's we should detect such a high percentage of our cases of cervical malignancy in the earliest stages of the disease. This seems especially remarkable when it is realized that we do not have a cancer detection clinic. Three factors doubtless explain our success in this line; first, as has already been mentioned, the routine taking of Papanicolaou smears, secondly, the unusually intelligent type of women who come to our dispensary, and third, the alertness of the house staff all of whom are intensely interested in discovering early cases of malignancy.

Dividing our stage 0 cases according to age yields some rather interesting figures. Six of the twenty-nine were under thirty, sixteen between thirty and forty, four between forty and fifty and only three over fifty. The average age was 33. These findings confirm the general impression that pre-invasive carcinoma often starts in relatively young women.

Four of our twenty-nine patients who had

stage 0 cancer had had subtotal hysterectomies before coming to us and the malignancy had later developed in the cervical stump. As in three cases seven years had elapsed and in the fourth, twenty-two years, it cannot be argued that the malignancy was present at the time of the first operation. This indicates the wisdom of whenever feasible removing the entire uterus when it is necessary to do a hysterectomy.

Twenty-six of the twenty-nine patients with 0 lesions were treated surgically. In three cases the vaginal route was employed, in the other twenty-three the abdominal. In the definitive treatment of stage 0 cancer, it is our belief that there is no reason for doing more than removing the uterus with a somewhat increased amount of parametrium and a slightly longer vaginal cuff than is usual with the ordinary hysterectomy. We do not believe gland dissections are indicated when the patient has only stage 0 carcinoma. We do not feel that x-ray and radium need be employed.

The remaining three patients with carcinoma-in-situ have been treated thus far only by cervical conization in deference to their youth and desire for future pregnancies. These patients are being followed closely with periodic cytological smears and biopsies; if and when these smears and biopsies indicate recurrence of carcinoma-in-situ a hysterectomy will be carried out. We feel under such circumstances this form of therapy is justified provided we are dealing with intelligent cooperative patients as all available evidence indicates that the transition from non-invasive to invasive cancer is a very slow process requiring several years.

One ovary was saved in fourteen 0 patients subjected to hysterectomy. This was of course done only in younger patients. It seems wiser to remove all of the pelvic organs in a woman over forty with cervical cancer even though the chance of the growth recurring in an ovary is slight.

There were no complications following the

operations performed for group 0 cervical malignancy. All of the twenty-six patients operated on have been heard from and examined in the past few months, after periods ranging from six months to six years since their operation.

The age instance of the women with stage I lesions was higher than those with 0 lesions. Thirteen of the twenty-six were over forty or fifty per cent of them, while only twenty per cent of those showing 0 lesions were over forty. Five of the stage I lesions were found in cervical stumps. Four of the five patients have had partial hysterectomies many years previously. One had had a supravaginal hysterectomy in another hospital only one year before she came to us, so it is possible that the lesion was present at the time of the first operation.

Our treatment of patients with group 1 lesions has varied considerably depending upon several different circumstances. Two patients were treated with irradiation alone, one is living after two years and apparently well. The other is dead. Both women were in poor general condition and very obese. It is quite possible we classified incorrectly the patient who died as the extreme obesity increased the difficulty of the examination and of evaluation. On twenty-three patients radical Wertheim operations with thorough gland dissections were carried out. Six of these received either radium pre-operatively, or deep x-ray afterwards, or both.

Twenty-three of the twenty-four patients operated on are alive but one very rapidly went down hill and died in six months. One other has had a return of cancer on the left side of the pelvis and two others have had recurrences to the vagina. Irradiation has helped two of these but we treated the third radically for in spite of radium, biopsies from the vaginal vault continued to be positive. We removed the entire vagina and the entire bladder and implanted the ureters into the sigmoid. Two years later she developed a small vaginal lesion which apparently was cured by radium. Now three years since the second operation the patient is still

alive and active and the pelvic examination is apparently negative.

Three patients developed fistulae. One vesicovaginal fistula healed spontaneously in three months. One ureteral fistula was operated on successfully by reimplantation of the ureter into the bladder. The third patient developed double ureteral and a rectal fistula. It finally became necessary to remove one kidney, to transplant the remaining ureter to the sigmoid and to make a colostomy. In other words the patient ended up with a wet colostomy. This operation was done several years ago and perhaps too much tissue was taken from around the ureters, under the bladder and over the rectum. She works in a Ten Cent Store and seems fairly happy. She might be dead if it were not for the irradiation and radical surgery but still we feel very badly about her.

Although a careful microscopic study was made of all glands removed at operation in only two of the twenty-three patients subjected to radical Wertheim operations with extensive glandular dissection was lymphatic invasion proven. One of the two patients whose glands showed this, a private patient of mine, had a recurrence in the pelvis one year post-operatively. The other is alive 16 months after operation. She has no symptoms. Pelvic examination is negative and shows no evidence of return of the malignancy.

Of course, the number of cases is too small from which to draw conclusions, but one cannot help but have questions arise in his mind. For instance, did the doing of the radical Wertheim operation with extensive gland dissection save the lives of any of these group I cases who would have succumbed if the same operation had been performed on them as we employ on patients with 0 lesions? The finding of positive glands in only two out of the twenty-six with group I lesions makes one wonder whether it was worthwhile to subject women with group I lesions to this very radical procedure, especially as in one of the two positive cases there was a return of

the cancer in nine months. It is true that only one of our twenty-four patients subjected to this radical procedure has died, but three fistulae did develop and one necessitated removal of the kidney and leaving the patient with a wet colostomy.

We are commencing to believe that patients in group I should be subdivided into two classes; the first made up of those having a lesion on the cervix which can be definitely seen and felt; the second of those women on whom the diagnosis of invasive cervical cancer is made entirely by microscopic study of biopsies taken from cervixes which appear and feel practically normal. We think that the women in the first group should be treated radically, but believe that the great majority of those in the second subdivision would be cured by the same operative procedure as is used for pre-invasive cancer.

The six patients with stage II lesions including one arising in the cervical stump were all treated by irradiation alone. Of these, one patient died five months after completion of therapy. The remaining five are alive and well without clinical evidence of recurrence; one six years, one five years, one four years and two three years after treatment. Proctitis has been a bothersome symptom in two of these five survivals.

These patients received both local applications of radium as well as deep x-ray. The modified Stockholm method was used in applying the radium, 4800 mg. hrs., half intracervical and a half contracervical was given in two divided doses, the interval being two to three weeks. X-ray therapy was instituted 3-5 weeks following the second radium application; 8000 roentgen units were administered through four portals.

The nine women with stage III lesions were treated with irradiation. Of these, three are living, two years following therapy. The remaining six have succumbed although two, in addition to irradiation, had the benefit of radical surgery when it was evident they had not responded to the irradiation.

A brief summary of one of these patients, a

private patient of mine seems to be of interest. In 1939 this patient, then 32 years old had a supravaginal hysterectomy in another city. In 1945 I carried out a radical vulvectomy with extensive gland resection for an epidermoid carcinoma of the vulva. Four years later she was found to have an adenocarcinoma of the cervical stump with invasion of the vagina and bladder. Following poor response to irradiation the cervix, vagina and bladder were completely removed and the ureters implanted into the sigmoid. For two years following this operation the patient was clinically well and lived a happy and useful life but then succumbed to renal insufficiency. A complete autopsy showed no return of either the squamous cell carcinoma of the vulva or the adenocarcinoma of the cervix.

There was only one patient in stage IV. When first examined she had a "frozen pelvis" and involvement of the bladder. She received full x-ray treatment and later two radium applications. In spite of this, she died in six months. The last patient in our series, who probably should be classified as a recurrence, had been operated on six years previously in another hospital for carcinoma of the cervix. When we examined her she had a recurrence in the vagina. We performed a radical resection of the vagina and a gland resection. Three years have elapsed and she is still living and comfortable.

SUMMARY

Six years have now gone by since Dr. Galvin and I started this work. The same uncertainty as to the best method of treating cervical malignancy which existed in 1949 is present today. At a Symposium held in New York in November 1954 under the auspices of the American Cancer Society the differences of opinions among the leaders in this field were strikingly obvious. However, the fact that others have not solved these problems does not give Dr. Galvin and myself any great satisfaction. Our series is small. Still as we have worked with these patients, we have gathered certain impressions and on the

basis of them have formulated some principles of treatment which, until new developments cause us to change our minds, we shall follow in the future realizing of course that special circumstances will warrant changes in the program.

(1) Unless contra-indicated by poor general condition, patients with pre-invasive cancer or group 0 are treated by what is spoken of as a modified Wertheim operation. Actually is is a greatly modified Wertheim operation for it differs from an ordinary hysterectomy only in that a larger amount of parametrium is removed and a somewhat larger vaginal cuff. No gland dissection is carried out. The removal of an increased vaginal cuff can be over-done as we have seen two rather young women whose vaginas were so diminished in length as to be a cause of dyspareunia. In women 35 or under and perhaps even up to the age of 40 one ovary is saved when this so-called modified Wertheim is carried out.

(2) In dealing with patients with group 1 or definite invasive cancer limited to the cervix, we feel it worthwhile to distinguish between what we call microscopic stage I and clinical stage I. When the cervix appears normal or practically so and invasion is found only on microscopic examination, a modified Wertheim is probably all that is necessary and a gland dissection not needed. However, when dealing with a clinical stage I, which means there is a definite lesion to be seen or felt, the treatment should be more radical. If the patient is in good condition and not too obese, she is subjected to a radical Wertheim including gland dissection and when it seems indicated is given either pre-operative radium, or post-operative x-ray, or both. One of the purposes of the pre-operative radium is to clear up the infection, diminish the size of the tumor and to at least temporarily control the bleeding.

In our opinion a radical Wertheim operation in cases of clinical stage I, cancer of the cervix has definite advantages over irradiation. The iliac and obturator glands are removed which we think is very important. Many authorities believe that when cancer is in glands rarely if ever

is irradiation effective. Moreover, the removal of the parametrium and of a long vaginal cuff would seem to offer an increased likelihood of the patient being cured.

While realizing that others who have had much more experience in this field than we have had advocate stripping the ureters and removing practically all the supporting tissue under the bladder and even the thin peritoneal coat covering the recto-sigmoid and indeed stripping the tissues over the sciatic nerves, doubt has arisen in our minds whether these very radical procedures are justified. It has been taken for granted but not definitely proven that this extreme degree of radicalism saves lives. On the other hand there is not the slightest doubt but that very major urinary complications follow such extensive procedures. The high percentage of urinary and rectal complications which are being reported from some of the outstanding clinics of this country must surely be having a sobering effect. We are careful to leave some tissue along the ureters, under the bladder and over the rectum. We make every effort to avoid complications and are critical of our operators when they occur. Patients with malignancy do accept post-operative complications with better grace than do other patients, probably going on the idea that it is better to be alive with a fistula than be dead. However, if we are honest with ourselves, we must realize the tremendous amount of unhappiness and embarrassment these complications must produce. Actually we believe that a thorough gland dissection saves many more lives than does the stripping of the ureters, and the removal of so much of the tissue under the bladder and over the rectum; and it is these latter procedures that are so apt to cause fistula.

Sixty-nine of our seventy-two patients had squamous cell carcinomas of the cervix. Three had adenocarcinomas. One of these three, a private patient of mine, had a type of adenocarcinoma, called by some an adenomalignum of the cervix. She is well two years post-operatively. One of the other two patients with adenocarcinoma of the cervix has died; the other is alive.

In managing a group of seventy-two women with malignancy other problems arise besides just deciding whether to use irradiation, or surgery, or both. The long stay of these patients in the hospital and sometimes the protracted convalescence at home presents grave social and economical problems to the patient's families, particularly when the families have limited finances. In the advanced cases numerous palliative methods are carried out in hopes of lessening the patients suffering and fighting the depression so often associated with this disease.

Due to the generosity of several of the pharmaceutical houses we have been given large amounts of Testosterone to be used on our patients with advanced carcinomas. We do not have a large enough series to present any definite conclusions but we have been very favorably impressed by the good results obtained in some patients by the use of Testosterone. Most patients receiving this require much less sedation than do others and their frame of mind remains surprisingly good. We have been varying the dosage from 100 mg. every two weeks to as high as 100 mg. every day.

We realize that we have not presented detailed statistics. This report must be looked on as merely a preliminary one. However, every year the number of patients with cervical carcinoma reporting to our dispensary has increased and in the majority of instances the malignancy has been detected in its earliest stages. In a few years we shall submit statistics showing our percentage of five-year cures. Now we are simply letting it be known what efforts at curing cervical malignancy are being made in the Hospital for the Women of Maryland.

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OPERATIONS OF VAGINAL DELIVERY*

JOHN E. SAVAGE, M.D.

This is a presentation, in outline form, of the philosophy and teaching of the procedures of operative vaginal delivery as given to the house officers at the Hospital for the Women of Maryland for their guidance in the management of the patients under their care.

I. PREPARATORY OPERATIONS.

- A. Vaginal Cesarean Section. Historical.
- B. Manual dilatation ("laceration") of cervix. Historical.
- C. Symphysiotomy and pubiotomy—not practiced in this country.
- D. Episiotomy. Median preferable: less bleeding; easier repair; patients much more comfortable.
- E. Dührssen's incisions (hysterostomy).

1. *Indicated* whenever delivery must be completed quickly and cervix is not fully dilated.

- a. Abruptio placenta
- b. Premature breech
- c. Fetal distress
- d. Prolapsed cord—vertex or breech.

2. *Conditions*

- a. Cervix must be completely EFFACED and at least 6-7 cm. dilated.
- b. No disproportion.
- c. Head engaged (or breech).

3. *Contraindications.*

- a. Placenta previa or low lying placenta.
- b. Any obstruction to easy pelvic delivery after cervix has been incised.

4. *Technique.*

- a. Good exposure—assistant, with lateral retractors.

b. Grasp cervix with two ring forceps—incise between.

c. Number of incisions depends upon dilatation and size of fetus. Classical: 10, 2 and 6 o'clock. Some operators believe single incision at 12 o'clock is best. We prefer incisions at 2 and/or 10 o'clock, 2 to 3 cm. long depending on dilatation.

d. Repair with continuous or interrupted chromic sutures starting just *above* apex of incision.

5. No dystocia in subsequent labors.

6. Some feel that there is no place in obstetrics for hysterostomy.

II. ANESTHESIA FOR OPERATIVE VAGINAL DELIVERY.

A. Remember the *depressing effects* of most inhalation and intravenous anesthetics upon establishment of *respiration* in the fetus.

B. Remember the relaxing effects upon the uterus of deep anesthesia with consequent *postpartum hemorrhage*.

C. Regional.

1. Local infiltration and/or pudendal block are safest. Chief dangers are occasional drug sensitivity or drug inadvertently given intravenously.

2. Caudal. Can be used for analgesia *and* anesthesia. Experienced personnel *absolutely* necessary. Useful in premature labor and in patients with cardiac disease. Watch blood pressure fluctuations.

3. Paravertebral block.

4. Saddle Block. Technique easily learned. No depression. Uterus retains tonus. Less blood loss in third stage.

* From the Obstetrical Service, The Hospital for the Women of Maryland.

5. True Spinal. Not often used in vaginal delivery.

D. *Inhalation.*

1. Chloroform. Small margin of safety. Little used in this country.
2. Nitrous oxide and oxygen. Depresses baby.
3. Ether plus nitrous oxide and oxygen. Version. Decomposition of breech.
4. Cyclopropane { Explosive. Highly
5. Ethylene { *trained personnel* absolutely necessary.

E. *Intravenous.*

1. Sodium pentothal; nembutal; other barbiturates.

F. *Rectal.*

1. Avertin. Ether. Paraldehyde. Little used today.

G. *Adjuncts.*

1. Relaxants—curare substances, etc.
 - a. To be used only by competent anesthesiologist.

III. FORCEPS.

A. *Types of forceps application* according to station of head.

1. Outlet—head distending vulva.
2. Low—visible head; skull on perineal floor; sagittal suture in AP diameter of outlet.
3. Mid-leading part of skull has reached the pelvic mid-plane. Axis-traction helpful.
4. High {
5. Floating { *historical*
6. Forceps to after-coming head. Routine.

B. *Functions*

1. Compression {
2. Leverage { *historical*
3. Traction
4. Rotation

C. *Indications.*

1. Maternal.
 - a. Exhaustion, hemorrhage, pre-

vious section, heart disease, prolonged labor (especially 2nd stage), uterine inertia (primary and that induced by too heavy analgesia), toxemias, and acute diseases.

- b. Believe in interference *before* onset of signs of distress both maternal and fetal.

2. *Fetal.*

- a. Fetal distress (alteration of FHT and/or presence of meconium stained amniotic fluid in vertex presentations); prolapsed cord; abruptio placenta.

3. *Elective* outlet forceps. Routine in many clinics under proper conditions. Indicated forceps deliveries represent only 10 to 15 per cent of forceps deliveries in various clinics.

D. *Conditions.*

1. Vertex presenting and engaged (or face with chin anterior).
2. Cervix fully dilated and retracted (or Dührssen's incisions).
3. Membranes must be ruptured.
4. No disproportion between head and mid-plane.
5. Bladder and bowel empty.

E. *Choice of Forceps.*

1. Avoid compression of head by proper selection of instrument according to conditions present.
2. Varies considerably with individuals—their training, locale, personal judgment; e.g.—some claim that one instrument can do all necessary forceps operations.
3. Factors determining choice of instrument.
 - a. Size, shape, moulding and station of head.
 - b. Synclitism or asynclitism.
 - c. Pelvis—type (gynecoid, android, anthropoid, platypelloid).

- (1) Configuration of mid-plane and outlet.
 - (2) Axis of pelvis and curvature of sacrum.
4. *Low Forceps.*
- a. Low pubic arch and short AP diameter of outlet—choose blade with good pelvic curve thus avoiding sulcus lacerations.
 - b. Well-moulded head—Simpson with shallow cephalic curve.
 - c. Round head—Elliott with short cephalic curve.
 - d. b. and c. will depend upon the manufacturer of the instrument with consequent minor variations.
 - e. Easy traction—some prefer solid blade (e.g.—Tucker-McLane) especially with small round heads.
 - f. For anterior occiput positions at any station in the pelvis—Hawks-Dennen forceps.
5. *Mid Forceps*
- a. Element of *axis-traction* now essential.
 - (1) Built-in traction element, (e.g.—Tarnier).
 - (2) Detachable traction element, (e.g.—Bill, Luikart).
 - (3) Make-shift axis-traction by means of a longitudinally folded towel above the finger rests on forceps handle, when need for axis-traction is encountered unexpectedly.
 - (4) Routine axis-traction principle in all forceps extractions by Saxtorph, Pajot, or Oslander maneuver.
 - (5) Axis-traction decreases injuries to perineum and posterior vaginal wall.
 - b. Element of *rotation* often necessary in OT and OP.
 - (1) Solid blade frequently preferred for rotation and fenestrated blade for extraction.
 - (2) *Occiput transverse*—deep transverse arrest.
 - (a) Kielland—generally applicable—but heavy construction may cause trauma. Sliding lock aids in correction of asynclitism.
 - (b) Luikart—"solid blade Kielland."
 - (c) Barton — one blade hinged (anterior). Especially helpful in posterior parietal presentations (OT in flat pelvis with straight sacrum). Not suitable for traction after rotation.
 - (3) Persistent *occiput posterior*.
 - (a) Standard instruments—for rotation or delivery as such.
 - (b) Kielland. Following rotation it is often best to remove it and to substitute some classical instrument with axis-traction since traction is thus improved.
 - (c) Luikart or other solid blade instrument.
 - (4) Face and brow presentations. (See below).
- F. *Technique of application.* Always cephalic application.
1. Exact diagnosis of position: palpation of sutures, fontanels and ears by vaginal examination.
 2. Orientation of forceps.
 3. In *occiput anterior* positions.
 - a. Posterior blade usually applied first, (although many prefer to

apply left blade first) followed by anterior blade.

- b. Trial traction should always be gentle and intermittent. Pajot or Saxtorph maneuver. Extend head when occipital protuberance is below and anterior to the inferior margin of symphysis pubis.
4. In *occiput transverse* positions.
 - a. Attempt manual rotation to occiput anterior.
 - b. Kielland forceps.
 - (1) "Wandering" application anterior blade.
 - (2) Classical application anterior blade: *right* blade always rotated to mother's *right*, and *left* blade always rotated to mother's *left*; or, rotation is always in the direction of arrow or button on handle.
 - (3) Posterior blade then placed in position.
 - c. Luikart forceps, applied in same manner as Kielland.
 - d. Barton forceps.
 - e. One may prefer to remove the Kielland, Luikart and Barton forceps after rotation and apply one of the classical instruments for more adequate traction.
5. In *occiput posterior* positions.
 - a. *Etiology*.
 - (1) Narrowing of mid pelvic plane would seem to be the major anatomical cause.
 - (2) Loose fit of head in pelvis (large pelvis with normal head or normal pelvis with small head).
 - (3) Rigid soft tissues may prevent rotation.
 - b. *Management*—Historical disagreement persists today: delivery as such (either spontaneously or

with forceps); or rotation manually or instrumentally.

- (1) Manual rotation should be attempted in all cases.
- (2) Forceps rotation.
 - (a) Determine flexion (watch for "military attitude"), and synclitism.
 - (b) "Key in lock" maneuver (De Lee).
 - (c) Scanzoni and Bill maneuvers.
 - (d) Single application rotation with Kielland or Luikart forceps, or conventional instrument applied upside down.
- (3) Delivery as such by forceps. Some are against rotation at all—claiming that changes in moulding increase likelihood of cerebral trauma in infant; while others believe that this factor is counterbalanced by the increased traction necessary to deliver the posterior occiput as such. Manual and forceps rotation may fail in marked anthropoid and android pelvis and the occiput posterior must then be delivered as such. A conventional instrument such as a Simpson is to be preferred because of the good traction possible. Horizontal traction first then elevate handles.
- G. In *face* presentations. X-ray all suspicious cases.
 1. *Chin anterior*.
 - a. Cephalic application along mento-occipital diameter.
 - b. Traction downward then upward with flexion of head.

- c. Choice of instrument varies—conventional probably best.
- 2. *Chin posterior*. (When deliverable through pelvis).
 - a. Rotation with Kielland forceps after upside down application—and, of course, after attempts at flexion.
- H. In *brow* presentation. X-ray of aid in diagnosis.
 - 1. Much more formidable than face because a larger head circumference attempts to go through pelvis.
 - 2. Convert to face if possible and proceed as above.
 - 3. Never attempt to apply forceps to brow as such we believe.
 - 4. Consider abdominal delivery if conversion impossible.
- I. *Trial Forceps*.
 - 1. In *borderline pelvis* when full test of labor (i.e.—two hours of full dilatation with membranes ruptured) has been given.
 - 2. All rules of forceps followed.
 - 3. Gentle traction with all approved concepts.
 - 4. If no progress—abdominal delivery.
 - 5. This is not a new concept. J. Whitridge Williams¹ in the first edition of his textbook in 1903 stated: "On the other hand, when the contraction is but slight, and especially when the head is firmly engaged in the upper part of the pelvic cavity, the tentative application of forceps may be justifiable. Under such circumstances a few tractions of moderate intensity should be made; if the head follows then they should be continued, but if not the forceps should be removed and delivery effected in some other manner."
 - 6. Jeffcoate² states that all mid forceps

deliveries should be regarded as "trial forceps."

IV. BREECH EXTRACTION.

- A. *Types*: spontaneous, partial extraction, total extraction.
- B. *Types of breech presentation*: Frank, footling (double or single), complete.
- C. *Prophylactic Management*.
 - 1. External cephalic version. Controversial. Performed between 30 and 38 weeks. Approximately 30 per cent failures. No anesthesia. Many spontaneous versions. Frequent auscultation of F.H.T. Complications: cord entanglements and placental separation—both relatively rare.
- D. *Management*.
 - 1. Pelvimetry in persistent breech. X-ray will also confirm position, etc.
 - 2. During labor keep patient in bed. Constant observation F.H.T. We believe sterile (or "aseptic") pelvic examinations should be used to follow patient with breech. Try to preserve amniotic sac in most cases. *Episiotomy before* delivery is begun.
 - 3. Await delivery of breech to umbilicus before extraction unless indication appears to interfere sooner. Delivery of shoulders by appropriate technique for case at hand. *After-coming head*: we prefer routine use of Piper forceps with towel sling³ to facilitate its application; Kielland or Hawks-Dennen forceps, or even conventional forceps may be used but not as convenient. Assistant maintains flexion of head by *moderate* fundal pressure and guides it into oblique or transverse inlet diameter until it is safely in the pelvis.
 - 4. If labor stops or continues without progress or immediate delivery be-

comes necessary for either maternal or fetal reasons—*decomposition* is imperative. Two hours or more of second stage labor without progress we believe is sufficient indication for extraction.

5. TOTAL BREECH EXTRACTION.

Deep anesthesia. Slow and deliberate manipulations. Lubrication.

- a. Pinard maneuver—try to get both legs. If only one leg can be grasped—prefer anterior one since back will then be brought anteriorly.
- b. Deliver breech to shoulders gently (covering body with warm towels) aided by fundal pressure (not strong).
- c. Guide shoulder girdle in oblique diameter and deliver arms by splinting humerus. *Nuchal* arms may be formidable—rotation of body and external manipulation.
- d. With head engaged—apply Piper forceps—perineal retractor—as face is exposed, suction of mouth and nose. Routine use of Piper forceps will save many babies and also prevent trauma. Towel sling aids application of forceps.³
- e. *Rotation of back posteriorly*—especially likely to occur in footling presentation or after version. Prevent nuchal position of arms in this mechanism by bringing them down early. After-coming head delivered with occiput posterior by flexion or extension or may have to be rotated (by Greenhill's combined external and internal maneuver) so that occiput is anterior.

V. VERSION.

- A. *Types*: External cephalic; external podalic (chief use in transverse lie when

cephalic can't be done); combined or bipolar; internal podalic.

B. Internal podalic version and breech extraction.

1. Probably the oldest known major obstetrical operation. Dangerous for both mother and baby. *RUP-TURED UTERUS*.

2. *Conditions*, ALL of which must be present!

- a. Completely effaced and dilated cervix.
- b. Displaceable head.
- c. No true disproportion.
- d. Adequate surgical anesthesia.

3. *Contraindications*.

- a. Absence of any of the above prerequisites.
- b. Placenta previa.
- c. Previous cesarean section.
- d. Previous deep myomectomy.
- e. Neglected transverse lie with impacted shoulder with or without prolapsed arm, and thin L.U.S. applied to baby.

4. *Indications*.

- a. *Second twin*—most frequent (elective indication) in modern obstetrics.
- b. *Brow or face* (usually with chin posterior) presentations—arrested labor.
- c. Some persistent *occiput posteriors*.
- d. *Prolapsed cord* following rupture of membranes with cervix fully effaced and dilated.
- e. *Transverse lie*—placed last in this list purposely since unless patient comes to full dilatation with membranes intact—indication for version is rare.

5. *Technique*.

- a. Deep surgical anesthesia. *GENTLE* manipulations.
- b. Rupture membranes as high as possible.

- c. Displace head.
- d. Grasp both feet if possible, then gentle traction and external upward pressure on head until conversion to breech is complete. Proceed with breech extraction.
- e. Some advise routine manual removal of placenta since uterus is relaxed—to save blood.
- f. *PALPATE UTERUS* for possible *RUPTURE* which is greatest danger.
- g. Intravenous pitocin infusion started immediately after delivery of placenta to combat uterine atony.

VI. DESTRUCTIVE OPERATIONS.

- A. *Infrequent* today. (Average resident may never see one). X-ray pelvimetry and safer cesarean section have practically eliminated this operation.
- B. Destructive operations after fetal death in utero may be relatively simple and non-traumatic for the mother when skillfully performed. Actually may be done in some instances with long scissors and little more. One of the chief dangers in these operations lies in the use of the heavy and cumbersome destructive instruments by unskilled operator. Another danger is from laceration of soft parts by sharp bony projections.
- C. "*Embryotomy*" includes all those procedures which have as their purpose the reduction in bulk of the fetal body or its division into 2 or more parts to facilitate delivery. *Craniotomy, decapitation, cleidotomy, eversion.*
- D. *Indications.* Done only on dead babies in these times.
 - 1. *Gross fetal anomalies* which cannot be delivered through the pelvis: giant fetus with hydrops and ascites; fetal bladder or kidney cyst dystocia; etc. Even hydrocephalics can be reduced by drainage with large spinal needle.
 - 2. Neglected transverse lie.
 - 3. Obstructed labor with dead fetus in vertex presentation.
- E. *Technique.* All manipulations must be done carefully to prevent maternal injury. *Birth passage and uterus must be carefully inspected and palpated to rule out damage.*
 - 1. *Vertex Presenting.*
 - a. Open skull; insert trocar blade of cranioclast into foramen magnum—screwing in; blades of instrument then applied to head and compressed then locked by screw in handle; gentle traction delivers head reduced in size. Cleidotomy if necessary.
 - 2. *Breech Presenting.*
 - a. Incision at base of neck and introduce trocar or long spinal needle—for use in after-coming *hydrocephalic* head. Religious considerations.
 - 3. *Transverse lie.* Neglected. Dead baby.
 - a. Await full dilatation of cervix (heavy sedation to slow uterine contractions if protective inertia has not supervened). Pull down arm and amputate or use gently as tractor—open abdomen and remove contents to reduce bulk (some prefer to open thorax but this is technically more difficult and dangerous). Then decapitation hook or steel wire snare as suggested by Torpin.⁴

VII. MANAGEMENT OF THIRD STAGE.

- A. Same as for normal vaginal delivery except for the modified conditions found at certain operative vaginal deliveries. If there has been ante and/or

- intrapartum bleeding, abruptio placenta, atony of the uterus (either primary or following deep anesthesia), then manual removal of the placenta may be indicated to save blood.
- B. Proper management of third stage important at all times but especially important following operative delivery.
- C. *Manual Removal of the Placenta.*
1. Meticulous technique. Anesthesia as required.
 2. Fundus steadied by external hand. Internal hand follows cord and is to be introduced intraovularly—then through the membranes at the periphery of the placenta until the plane of cleavage is found.
 3. Side-to-side or "slicing" motion of whole hand—with fingers toward uterine cavity—until complete separation.
 4. Leave internal hand within the uterus and deliver separated placenta by traction on cord. The internal hand thus does not have to be reintroduced and is used to palpate the interior of the uterus for retained portions of the placenta and/or damage to the uterus.
 5. Prefer not to pack. Bimanual compression. Oxytocic drip—*strong*.
 6. Hand withdrawn as uterus contracts. Antimicrobial therapy.
- D. *Suggested Management of third stage of labor.*⁵
1. Slow delivery of the infant (when- ever possible in operative vaginal delivery—advantage of regional anesthesia). Conserves maternal blood and provides additional blood for the baby.
 2. Vaginal touch for the detection of placental separation.
 3. Prompt application of Brandt- Andrews method of placental expression.
 4. Holding the uterus up out of the pelvis until the oxytocics become effective and the uterus remains contracted. This procedure generally obviates the necessity for massage (with its attendant danger of displacing the placental clot) of the uterus after placental expulsion.
 5. Inspection of the cervix (which we believe should be routine after every delivery and especially after all operative vaginal deliveries).
 6. Careful examination of the placenta.
 7. Observation of the patient for a minimum period of 2 hours postpartum.

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REFERENCES

1. WILLIAMS, J. WHITRIDGE. *Obstetrics, a text-book for the use of students and practitioners.* New York. D. Appleton and Co. P. 358. 1903.
2. JEFFCOATE, T. N. A. The place of forceps in present-day obstetrics. *Brit. M. J.*, **2**: 954. Oct. 31, 1953.
3. SAVAGE, JOHN E. Management of the fetal arms in breech extraction. *Obstetrics and Gynecology*, **3**: 55-57. Jan., 1954.
4. TORPIN, RICHARD. *A treatise on obstetric labor.* Augusta, Georgia. Augusta Obst. and Gyn. Book Co. P. 438. 1948.
5. SAVAGE, JOHN E. Management of the third stage of labor. *South. Med. J.*, **46**: 379-384. April, 1953.

JAUNDICE

A Fifteen Year Incidence Report at The Hospital for the Women of Maryland

WILLIAM F. PEARCE, M.D. AND I. RIDGEWAY TRIMBLE, M.D.

Since jaundice is frequently a presenting symptom in a wide variety of pathological conditions, and is almost always an interesting and a perplexing problem, it was decided to analyze a series of such cases as seen at the Women's Hospital during the past 15 years, correlating the viewpoints of the general surgeon with those of the internist. The classification of jaundice and its differential diagnosis are briefly discussed.

The amount of bile pigment, bilirubin, normally present in human serum varies between 0.2 to 0.8 mg. per 100 cc. When this bile pigment is present in excessive amount in the blood (hyperbilirubinemia) it escapes into the tissues, e.g. skin, mucous membranes and conjunctivae which then becomes stained a yellow tint. Jaundice or icterus may be due to (1) the production of bile pigment in excess of the amount with which the excretory power of the normal liver can cope, or (2) it may result from the failure of a damaged liver to excrete the bilirubin produced in normal amounts, or (3) it may be brought about by external obstruction of the hepatic or common bile ducts.

These three primary types of jaundice may be further broken down as follows:

(1) *Hemolytic jaundice.*

- a. Toxins of certain infections, septicemia.
- b. In such states as malaria, pernicious anemia, pulmonary infarct.
- c. Acholeric jaundice, familial.
- d. Icterus neonatorum.
- e. Certain chemical poisons, e.g. arsenic, ricin.

(2) *Toxic or Infective, so-called Retentive Jaundice. (Parenchymal Liver Disease).*

- a. Various poisons, e.g. arsphenamine, phosphorus, chloroform, etc.
- b. Acute and chronic liver diseases, e.g. cirrhosis, infectious hepatitis, homologous serum jaundice, suppurative cholangitis, acute yellow atrophy.
- c. Toxins of various pathogenic bacteria.
- d. Engorgement of the hepatic vessels as a result of cardiac failure. It has been pointed out by Meakins that in the latter condition the edema or ascitic fluid does not contain bilirubin and the skin over edematous regions is not stained. There is no explanation of this fact.

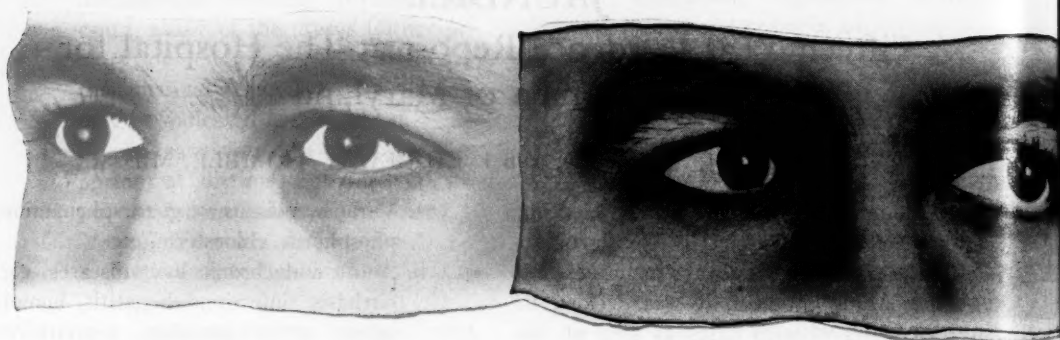
(3) *Obstructive jaundice, so-called Regurgitative Jaundice. (Extrahepatic Biliary Obstruction.)*

- a. Gallstones.
- b. Carcinoma of the head of the pancreas, of the ampulla of Vater, of the common duct or gallbladder.
- c. Congenital obliteration of the ducts.
- d. Inflammatory obliteration of the ducts.
- e. Surgical injury of the ducts.

It must of course be appreciated that jaundice is frequently due to a combination of causes. For example, in obstructive jaundice the liver cells may suffer damage from prolonged retrograde pressure, and in certain cases of hepatitis the bile passages may become obstructed with mucous or other secretions.

With this classification in mind, all charts of women bearing a diagnosis that would fit into one of these groups were reviewed covering a period of the past 15 years, 1940-1954. Jaundice in infants was not included in this study. In all, a total of 1,344 case histories were reviewed and,

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of these, 146, or 11% were found to have been jaundiced. Only those patients were selected for study that had either a total bilirubin in excess of 2.0 mgm. per 100 cc. of blood or an icterus index exceeding 10.0. These amounted to 146 cases and they were divided into the following diagnoses:

Cirrhosis of the liver.....	49
Infectious hepatitis.....	43
Carcinoma of the pancreas.....	11
Cholelithiasis.....	9
Acute cholecystitis.....	6
Undiagnosed.....	5
Stricture of the common duct.....	4
Lobar pneumonia.....	4
Chronic cholecystitis.....	3
Acute pancreatitis.....	2
Lymphosarcoma of the liver.....	2
Metastatic carcinoma of the liver.....	1
Primary carcinoma of the liver.....	1
Abscess of the liver.....	1
Pancreatic cysts.....	1
Acute cholangitis.....	1
Hodgkins disease.....	1
Carcinoma of the gallbladder.....	1
Carcinoma of the ampulla.....	1

It will be observed that 63% of the jaundiced women either had cirrhosis of the liver or infectious hepatitis, both of which are in the intra-hepatic or retention type group. The vast majority of the remainder were in the extra-hepatic or regurgitation group. One exception to this was the group of lobar pneumonia cases in which the jaundice is presumably the result of either hepatic anoxemia or possibly a hemolytic septicemia. It will also be noted that in our entire series we had no cases at all of the hemolytic jaundice type.

In this entire group there were 22 hospital deaths, indicating an over-all mortality rate in jaundice of 15%. Twelve of these deaths were in patients with malignant disease; six were due to cirrhosis, one to hepatitis, one to abscess, and two were undiagnosed with no post mortem obtained.

In the hepatitis group, which prior to 1940 was diagnosed "catarrhal jaundice," there was only one death. This was a particularly interesting case that progressed over a five-year period in the following sequence:

Infectious hepatitis, untreated for several months, and followed by fatty infiltration of the liver; next came cholecystitis with cholelithiasis; and finally Laennec's cirrhosis with numerous paracenteses for ascites and finally the patient was subjected to ligation of the hepatic artery.

DIFFERENTIAL DIAGNOSIS

It is obviously important to know from which of these three primary types of jaundice any patient is suffering if proper therapy, medical or surgical, is to be applied. In such a study the clinical and laboratory evaluation of symptoms and signs must be closely correlated with a thorough understanding of the normal physiology of the liver with its multiplicity of functions and its behavior in pathologic states.

Fortunately, the average patient with jaundice does not constitute an immediate emergency problem, so that a few days can normally be devoted to efforts to make an accurate differential diagnosis. Certain more or less broad generalizations, especially important when surgery is being considered, may be made in evaluating the jaundiced patient.

In the middle-aged patient with painless *progressive jaundice* and acholic stools, if the gallbladder is distended and palpable, there is an 80 per cent chance that the obstructing lesion in the head of the pancreas is malignant, as pointed out many years ago by Courvoisier, but it must be remembered that approximately 15 to 20 per cent of such pancreatic tumors may be benign inflammatory ones.

Patients with *progressive jaundice* and acholic stools who have had a previous operation on the biliary tract may have a stricture of the common or hepatic bile ducts as the causative factor.

Patients with *intermittent jaundice* following

attacks of upper abdominal pain usually have a benign lesion in their biliary tract, most often a stone or possibly a stricture of the common duct if the patient has had a previous biliary operation.

No laboratory studies are so valuable as careful clinical observation. Probably, the most important, and yet the most neglected examination of a patient with jaundice is the simple observation as to whether or not there is bile in the stools. Many times, the most complicated liver function and other tests are recorded on the patient's chart and no record can be found as to whether or not the stools were bile colored, a fact which could be established by a digital rectal examination alone, and the presence of an obstructive or a non-obstructive jaundice be determined at once.

In this series of cases it was observed that one of the most helpful and accurate laboratory tests was the determination of urinary urobilinogen. It will be recalled that when bile reaches the intestine, it is transformed into urobilinogen. Some is excreted in the stool and the rest is reabsorbed and carried to the liver in the portal blood stream. Some of this is re-excreted in the bile and some is absorbed in the general circulation and eliminated through the kidney. Thus in regurgitation jaundice, very little bile reaches the intestine, hence little or no urobilinogen is formed and accordingly little or none is found in the urine (normal 0 to 4 mgm. per day). However, in retention jaundice with diffuse hepatic disease, it is assumed that adequate bile reaches the intestinal tract for conversion into urobilinogen which is absorbed into the portal system but the re-excretion by the liver is impaired and accordingly a much greater amount of urobilinogen is then conveyed to the kidney for excretion. Perhaps the most marked derangement of urobilinogen metabolism is present in hemolytic disorders, which cause great amounts of bilirubin to be excreted by the liver and hence much more urobilinogen in the stools.

In this same connection, we have observed that, almost without exception, the higher the concentration of total bilirubin in the blood and the higher the icteric index, the more grave the prognosis. In those cases in which the total bilirubin exceeded 20 mgm.% or the icteric index exceeded 50, the mortality rate was 40% as compared to an over-all rate of 15%. The highest icteric index recorded was 93 in a case of carcinoma of the head of the pancreas and the highest bilirubin recorded was 49 mgm.% in a case of post-operative stricture of the common duct.

In recent years a number of liver function tests have been devised which have proved most helpful. Some are concerned with the pathological physiology of the liver in a general sense only and do not help in the differentiation between the various types of jaundice, but a few others, properly interpreted and evaluated, are of considerable diagnostic aid, and may on the one hand serve to prevent costly delay in surgery on patients suffering from an extrinsic obstruction of the common duct or serve to protect patients with such parenchymal liver disease as acute hepatitis from an unnecessary and, even, harmful surgical operation.

The normal physiology of the liver with its multiplicity of functions and its physiology in pathologic states should be reviewed, even briefly, if one is to appreciate the significance, validity and usefulness of the various liver function tests. Those most helpful in a differential diagnosis of jaundice in our experience are:

1. Plasma prothrombin time.
2. Prothrombin tolerance.
3. Cephalin cholesterol flocculation.
4. Thymol turbidity.
5. Serum alkaline phosphatase.
6. Urinary urobilinogen.

The liver is important in the metabolism of protein, carbohydrates, and lipids, and in bile formation and excretion, and in the conjugation or destruction of numerous natural and synthetic substances.

PROTEIN METABOLISM

The protein substances fibrinogen, prothrombin and albumin are said to be synthesized in the liver. Clinically a fall in plasma fibrinogen is rare except in the presence of catastrophic liver disease such as acute yellow atrophy. A fall in fibrinogen manifests itself in prolongation of the clotting time also. This prolongation of prothrombin time is apparently due to a failure of synthesis of prothrombin by the liver and must be differentiated from the prolongation of prothrombin time which occurs in obstructive jaundice as the result of failure of absorption of vitamin K from the small intestine.

This differentiation is the basis for Tests I and II (Plasma prothrombin time and prothrombin tolerance), mentioned above and is made through the administration of vitamin K to patients in whom the prothrombin time is 50% of normal or less by giving 2.4 mg. of 2-methyl, 1-4 naphthoquinone (Hykonone) intramuscularly, and repeating the prothrombin time after twenty-four hours. In the patient with obstructive jaundice the prolonged prothrombin time will be shortened and will usually rise 10% or more within twenty-four hours. When more than a moderate amount of liver damage is present, however, the administration of Vitamin K parenterally is followed by little or no shortening of the prolonged prothrombin time. It must be remembered, however, that one can never be sure whether a negative response to the test is due to extrahepatic obstruction or intrahepatic disease.

Next in its function related to protein metabolism the liver is concerned with serum albumin and globulin. A fall in the serum albumin level is common in hepatic disease and results in the decline of the plasma colloid osmotic pressure, which may in time dispose to the accumulation of ascitic fluid and edema. The plasma globulin also is related to protein metabolism in the liver but the relationship is less clear. Paradoxically, the plasma globulin concentration increases in the presence of liver disease, and the proportions

of the various components of the plasma globulin are altered. The clinical significance of the alterations in serum globulin is obscure, but in practice these changes are useful because their gross detection is simple, and their presence is an index of liver function. Tests 3 and 4 (cephalin cholesterol flocculation and thymol turbidity), are based on such changes in the globulin content of the blood plasma.

Measurement of the concentration of albumin and globulin in the blood provides information which is of supplementary use only since the blood levels for these substances vary in many diseases. In acute hepatitis Post and Patek report that about two-thirds of patients show a slight decrease in the serum albumin level below the normal of 4.0 grams per 100 cc. Furthermore, about one-fourth of patients with acute hepatitis have a serum globulin slightly above the normal of 3.0 grams per 100 cc. In acute yellow atrophy the decrease in serum albumin may be very pronounced, and in chronic liver disease, such as cirrhosis, the serum albumin may remain at such low levels as 2.5 grams per 100 cc., and the globulin may be moderately elevated. The prognosis of the patient with cirrhosis may be gaged roughly by the level of serum albumin on admission. Thus, in a study by Post and Patek, the mean serum albumin level of twenty patients with cirrhosis who died was 2.4 grams per 100 cc., and that of twenty-eight who improved under treatment was 3.0 grams per 100 cc. Since the serum albumin decreases and the serum globulin increases during the course of liver disease, the total serum protein level is frequently normal, so that the measurement of *total* serum protein is not recommended without a simultaneous albumin-globulin partition.

Not only are the serum globulin levels increased in the course of liver disease, but the qualitative composition of the globulins is changed. This has been made the basis for a number of liver function tests, the most popular of which at present are the cephalin-cholesterol

flocculation test of Hanger and the thymol turbidity test of MacLagan. (Tests 3 and 4 of this paper.) The cephalin-cholesterol test is based on the fact that in the presence of hepatic damage the addition of a colloidal complex of cephalin and cholesterol to serum results in the appearance of a flocculent precipitate. This is apparently due to the presence of an excess of gamma globulin relative to serum albumin. In Dr. Hanger's hands, the cephalin flocculation test has served as a valuable differential diagnostic aid between parenchymal and obstructive jaundice. Thus, in acute infectious hepatitis the cephalin flocculation test becomes positive early during the course of the disease, whereas in obstructive jaundice of less than one month's duration, the cephalin flocculation test is negative. In chronic hepatic disease, however, the cephalin flocculation test was not necessarily positive. Experience confirms these statements.

The thymol turbidity test also measures the presence of an increased amount of one of the globulin fractions. In 1944 MacLagan accidentally observed that the addition of thymol crystals to diluted serum of patients with liver disease resulted in the appearance of a uniformly turbid solution. This is apparently due to the presence of excessive amount of alpha and beta globulin. In our laboratory we consider the thymol turbidity tests positive when the turbidity is 6 arbitrary units or more. In patients with acute infectious hepatitis the thymol turbidity test is almost uniformly elevated, and remains elevated after the cephalin flocculation test and bilirubin tests have returned to normal. Furthermore, as Dr. Mirick and Dr. Shank have shown, the thymol turbidity test will indicate changes in hepatic function in patients with acute hepatitis without jaundice, and indeed is useful during an epidemic for the detection of sub-clinical cases. Dr. Mirick and Dr. Shank also showed that even if an individual reading is less than 6 units, during the course of acute infectious hepatitis, serial readings may reveal an orderly decrease in thymol turbidity during

the recovery phase of the disease. The thymol turbidity test is usually negative during the early part of obstructive jaundice, and as such is a useful differential diagnostic aid, although, as with the cephalin-cholesterol test, patients with intrahepatic jaundice will have a negative thymol turbidity test. In cirrhosis, on the other hand, the results of several published studies indicate that the thymol turbidity test is not so frequently positive as the cephalin flocculation test.

Tests of liver carbohydrate metabolism are in general unsatisfactory. The intravenous injection of galactose is, perhaps, the most accurate. Approximately 25 grams of galactose are injected (the amount varying according to the technique used) and the blood level of galactose measured after, for example, 75 minutes. By that time all the galactose injected should have been converted to glycogen and the presence of galactose in the blood is indicative of a pathological liver. The test, however, is technically difficult. Administration of galactose orally, a widely used test, introduces the uncontrollable factor of intestinal absorption, and the results obtained are unsatisfactory.

BILE FORMATION AND EXCRETION

One of the main functions of the liver is the secretion of bile, the chief biliary components of which are bile salts, bile pigments, cholesterol, and lecithin.

Several substances stimulate biliary secretion, materials acting in this way being known as cholagogues, the natural and most powerful excitants of biliary secretion being the bile salts themselves. *Secretin*, the hormone from the duodenal mucosa, also stimulates the secretion of bile.

Bile secretion is also under autonomic nervous control. For example, stimulation of the peripheral end of the cut vagus nerve causes a definite increase in bile production. A reflex secretory effect can also be demonstrated by stimulating the central end of the cut end of one

vagus. An acetyl choline-like substance appears in the hepatic veins upon vagal stimulation. Sympathetic trunk stimulation, on the other hand, inhibits biliary secretion but this may be secondary to constrictor effect on the hepatic vessels. Adrenaline decreases the bile flow whereas pilocarpine and prostigmine increase it.

Bile salts. The liver synthesizes bile salts, which are (a) glycocholate of sodium and (b) taurocholate of sodium. These salts are first in the liver in the form of glycolic acid and taurocholic acid, formed apparently by the conjugation of taurine and glycine with desoxycholic or cholic acid.

In the presence of *obstructive jaundice*, these bile salts do not reach the small intestine, and as a result the absorption of fat and fat soluble vitamins by the intestine is impaired. Because of this impairment of Vitamin K absorption, there is deficient prothrombin synthesis and secondarily a prolongation of the prothrombin time and a tendency to hemorrhage, as was described in the discussion on synthesis of prothrombin.

Bile pigments. These are bilirubin and biliverdin, the latter being an oxydative derivative of the former. Bilirubin is derived from hemoglobin, being the porphyrin (globin-free and iron-free) fraction of the hemoglobin molecule. Tissues other than the liver have the ability to produce bile pigments. The elements of the reticulo-endothelial system situated in the spleen, lymph glands, bone marrow and the general connective tissues, as well as the liver, are responsible for the extrahepatic formation of bile pigment. Of these the bone marrow is probably the most important. Normal amount of bilirubin present in human blood-serum is from 0.2 to 0.8 mg. per 100 cc., as stated above.

Perhaps the best single laboratory test in differentiating between parenchymal liver disease and extrahepatic obstruction is by careful interpretation of the alkaline phosphatase in the blood.

Obstruction of the biliary ducts will elevate

the serum alkaline-phosphatase level by interfering with its excretion. This rise will occur when the common bile duct is completely obstructed, but it may also occur when there is only partial obstruction of the biliary outflow. When obstruction of the biliary ducts is associated with significant liver-cell damage the elevation of the serum alkaline phosphatase may be less marked than it is in pure obstruction without parenchymal damage, because there is decreased production of alkaline phosphatase by the liver. For this reason a low phosphatase in the presence of obstruction may be an ominous sign and perhaps a contradiction to immediate operation. However, in most case of obstructive jaundice the alkaline phosphatase is above 15 Bodansky units, and this figure of 15 units represents the best approximate dividing line between uncomplicated obstructive and non-obstructive jaundice. It is impossible, of course, to be dogmatic about any one figure or any one test.

SUMMARY

One hundred and forty-six patients with jaundice are reported from The Hospital for the Women of Maryland for a fifteen year period, 1940 to 1954. Classification of the types of jaundice in these patients is recorded. Certain clinical and laboratory methods in the differentiation between medical and surgical jaundice are listed.

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BIBLIOGRAPHY

1. BEST, C. H. AND TAYLOR, N. B.: The physiological basis of medical practice. Baltimore, Williams & Wilkins, 1950.
2. SHERMAN, M. MELLINKOFF, TUMULTY, PHILIP A. AND MCGEEHEE, HARVEY A.: The differentiation of parenchymal liver disease and mechanical biliary obstruction. N.E.J.M., Vol. 246, May 8, 1952.
3. Personal communication from Dr. Oscar Davis Ratnofi.

THE PRACTICAL NATURE OF A SMALL DIABETES CLINIC

GEORGE S. WATSON, M.D.

Wednesday mornings for the last twenty-three years the Diabetes Clinic of "The Women's Hospital" has opened its doors to the diabetic women of Baltimore and its outlying communities. Some testimonial to this uninterrupted service would seem appropriate. The observations to follow are not intended as a scientific treatise, but rather as a description of the practical nature of this clinic and of the service rendered thereby.

The medical out-patient service of the Hospital evolved in 1924 as a single room where the Medical Resident treated ambulatory patients. The hospital fee for these services was ten cents per visit. By 1933 the out-patient service had increased, including in its growth a number of diabetic patients. It became desirable for reasons of laboratory convenience, as well as of practical advantage to the patients, to create a Diabetes Clinic.

The scope of the clinic has not altered since its inception. In its simplest terms it is responsible for the medical needs of the diabetic patient, not solely for the chemical management of the diabetic state and its specific complications. Where possible the patient maintains a relationship with a private physician. Certain patients become financially eligible for clinic care only by virtue of having Diabetes Mellitus. If the care of this disease is partially subsidized by clinic facilities, these persons may afford private medical care for the illnesses that ordinarily receive home management. It seems wise not to discourage those patients who would neglect their Diabetes if forced to bear the full financial burden of adequate control. We prefer to encourage private medical care, at the same time allowing this group of patients the facilities of diabetic management in the Clinic. That this privilege may be occasionally misused is prob-

able. The impression gained by our Social Service Department is that such instances are rare, and are far out-weighted by the advantage of good control in diabetics who would otherwise neglect their disease with resultant loss of productivity and increased need for hospitalization.

STAFF AND CLINIC FACILITIES

The Clinic is staffed by two senior physicians who see patients at each Clinic session and act as consultants when necessary. Medical house officers see patients independently, asking for consultation service when desired. Two registered nurses, a dietitian, a welfare worker and the Hospital Laboratory comprise the remainder of the Clinic staff.

Surgical and gynecological referrals are made within the hospital to appropriate house officers. If expedient, additional consultation is available through the senior staff of the Hospital. Ophthalmological, dental and neurological consultations are referred to other facilities in Baltimore.

Each patient, on arrival at the Clinic, is seen first by the nursing staff. A blood sugar is drawn, a urine specimen examined for glycosuria and acetone, and weight and blood pressure are recorded. Facilities are available for feeding patients who have had fasting blood glucose determinations. Patients are examined by the medical staff from eleven-thirty to one-thirty o'clock. During the course of each year an effort is made to complete a thorough physical examination and to obtain basic laboratory data, including miniature chest X-ray, urinalysis, hemoglobin and white blood count for each patient.

Although the date of their next visit is set by the examining physician, patients are privileged to return at any Clinic session, as need arises. Nine hundred and thirty-six Clinic visits were

made during the year of 1954. Each patient paid an average of ninety-eight cents per visit. The cost per visit is estimated at three dollars and one cent. The gross cost of operating the Clinic is two thousand, eight hundred and seventeen dollars. The net cost to the Hospital is approximately one thousand, nine hundred dollars per year.

ADVANTAGES OF CLINIC CARE IN DIABETES

In describing the advantages accruing to the diabetic person receiving clinic care, let the author first state his personal belief that there is no substitute for an interested, well-informed physician who accepts the care and education of the diabetic patient and is willing to care for him in the office, home or hospital, as occasion demands. There are, however, advantages in the clinic atmosphere peculiar especially to Diabetes Mellitus.

The diabetic individual is confronted by a disease for which no cure is now available. Should he require Insulin he must accept the unpleasant aspect of daily and probably life-long parenteral therapy, upon which he is dependent not only for health and vigor, but for life itself. The use of Insulin automatically implies the risk of Insulin shock. A practical knowledge of his disease requires an awareness of its many complications. Successful management imposes a discipline that deeply invades his freedom, his thought, his way of life. The restrictions and insecurities of Diabetes Mellitus offer the patient problems in adjustment that are rarely appreciated by the non-diabetic. The diabetic individual competes in this busy, turbulent society on an even footing with his normal colleagues. No allowances are made for his need for regularity. Occasionally he must hide the fact that he is diabetic in order to maintain his employment.

Within the clinic atmosphere there is comfort, support and understanding in the presence of others with similar problems. Many of our patients have become close friends. They

aid and support each other in many ways having no direct bearing on the diabetic state. From half-past nine until eleven-thirty o'clock the Clinic functions as a social and therapeutic instrument, enhancing the integration of new patients and supporting the flagging spirits of the more experienced. Here the newly discovered diabetic patient finds that she is "not the only pebble on the beach." She sees that others who are present for treatment of the disastrous illness to which she has fallen victim appear no less well, no more unhappy, and no different from the normal persons she knows. As she accumulates acquaintances and friends in this "Society" of Diabetes, she also accumulates information regarding her illness which would take many hours to impart were she dependent entirely upon her physician. The patients converse with great freedom about their diabetic experiences, their failures, their victories, their fears and problems. "Mrs. Jones" comments on the fact that she has gained five pounds in weight; she is sure her blood sugar will be elevated and her physician disappointed in her. Another individual has had an exacerbation of Diabetic Neuritis; she willingly concedes that she has not been following her diet and is now paying for her misdemeanors. A prospective mother is concerned about her first pregnancy. She finds great comfort in talking with a patient who takes sixty units of Insulin and has five vigorous children, only one of whom is now diabetic. The patients discuss their hospital admissions, their heart attacks, their cataracts, their weight, their diets and their doctors, as well as their husbands and the weather. In so doing they share their knowledge of Diabetes, the chief source of which is the clinic staff. This group integration is available only to the clinic-treated patient. The group attitude is nearly always optimistic; often the patient wrestling with her illness in the absence of understanding co-sufferers is inclined to be less cheerful and less well-informed.

In addition to the psychological, educational

and financial advantages to the patient, one might add that physicians, by interest and experience in treating numbers of diabetics, accumulate facility in treatment which must be considered advantageous for the patient. Similarly, the presence of a group of diabetic patients is an obvious advantage in the education of medical house officers. The services of nurses, dietitians, laboratory staff and social workers are economically utilized within the clinic structure.

PROBLEMS IN MANAGEMENT

The problems in management of our patients might, without great profit, be exposed to statistical analysis, confirming the fact that they are essentially the same problems as are met in other diabetic clinics. The basic, most difficult problem responsible for difficulties in chemical management, as well as for numerous diabetic complications, is not readily capable of statistical treatment. This problem is the fundamental one of integrating the life situation with diabetic management. It is a problem so basic and universal to the practice of medicine that it falls entirely beyond the limits of this discussion. Suffice it to say that it is unusual for a previously well-controlled diabetic patient to become poorly controlled or resistant to therapy in the absence of a disturbing personal problem or emotional upheaval. In searching for the etiology of inadequate control of Diabetes, we have found that the cause lies more frequently in a disturbance of the life situation than in the presence of organic disease.

Of the specific problems in clinical management, obesity outranks all others. In surveying one hundred and fifty-nine patients in our Clinic, fifty-five per cent were found to weigh over one hundred and sixty pounds. Of this number, twenty-two per cent were losing weight, nineteen per cent were currently showing weight increases, while the remainder showed no recent weight change. Seventy-eight per cent of the over-weight individuals were being maintained on Insulin.

Next in frequency is hypertension. Forty per cent of the patients had systolic blood pressures greater than one hundred and sixty mm. of Hg (measured in the seated position). Slightly less than ten per cent, however, had diastolic blood pressures greater than one hundred mm. of Hg. Seventy-two per cent of the over-weight patients had elevated blood pressures. The elevations in blood pressure must be considered, however, in regard to age. The average age for the entire group is 58.2 years. The average age of female diabetic patients in a nationwide survey is 56.7 years,* corresponding closely to the group we have surveyed. In such a group one would expect the incidence of cardiovascular and renal disease to be high.

Other problems commonly seen in our group are those consistent with aging more than with diabetes per se. The specific complications of diabetes are less frequently observed than the common problems of age and obesity. The ocular manifestations of diabetes, peripheral vascular disease, urinary tract infection, and the neuropathies are the most frequent specific complications of diabetes noted in our Clinic.

SUMMARY AND CONCLUSIONS

The Diabetes Clinic of the Hospital for the Women of Maryland is now in its twenty-third year of continuous service to diabetic patients of Baltimore and its surrounding communities. Its scope is the general medical care of the one hundred and fifty-nine diabetic persons currently receiving treatment in the Clinic. Many of these patients receive private medical care for acute illnesses commonly managed at home. The maintenance of such care is encouraged.

The administration of the Clinic is briefly discussed. Nine hundred and thirty-six patient visits were made during 1954. The net cost to the Hospital for this service was less than two

* National Institute of Health, 1935-1936. The Magnitude of the Chronic Disease Problem in the United States. Division of Public Health Methods, National Institute of Health, U. S. Public Health Service, Washington, 1938.

thousand dollars, the cost per patient slightly under thirteen dollars.

Certain advantages of the "Clinic" type of care in Diabetes Mellitus are discussed. We believe that the clinic atmosphere aids in the integration and adjustment of the patient to his disease and serves also as an educational facility. The Clinic serves as a detection center for Diabetes Mellitus; it allows for economical expenditure of laboratory, dietetic and nursing facilities for diabetic patients. The experience of the Staff Physicians in treating large numbers of diabetics is advantageous to the patients and creates a valuable teaching experience for House Officers.

The more common problems in the management of patients are noted. The cause for poor

control of the diabetic patient is found more frequently to reside in a difficult life situation or in emotional crises than in the presence of complicating disease. The integration of the life situation with diabetic management is a fundamental problem in treatment.

Obesity and hypertension are the most common abnormalities noted in conjunction with the presence of Diabetes Mellitus in our clinic group. The specific complications of Diabetes are believed to be less common than the usual complications of aging and obesity. The average age for the diabetic patients in the Clinic is 58.2 years.

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AIDS IN THE EARLY DETECTION OF CERVICAL CANCER*

RAYMOND L. MARKLEY, M.D. AND GERALD A. GALVIN, M.D.

Women are becoming more aware of the need for early diagnosis and treatment of cancer of the cervix. Therefore, the physician is expected to diagnose and treat this lesion early. Of 51 cervical cancers detected among clinic patients at The Hospital for the Women of Maryland during the years 1950-1954, 22 were Stage 0 and 19 were Stage I. This paper discusses the factors responsible for this high incidence of cervical cancer (41 cases) in the early curable stages.

The importance of early diagnosis can be emphasized by the most recent salvage figures for cancer of the cervix at The Johns Hopkins Hospital.¹ These figures are for the year 1948

and report the percentages of patients in each group living and well after five years. All of the patients with Stage 0 (carcinoma-in-situ) carcinoma of the cervix were living and well after five years while 85% of the patients with Stage I carcinoma, 42.1% of patients with Stage II carcinoma, 21% of patients with Stage III carcinoma, and 0% of patients with Stage IV carcinoma were living and well after five years.

In 1944 at the Woman's Medical College of Pennsylvania, MacFarlane² performed 9111 examinations on 1319 presumably normal women. Three early carcinomas of the cervix were detected on the first examination of the group and a fourth case was detected on her eleventh visit at which time the growth was "a smooth red polypoid growth 1 cm. in diameter projecting through the external os." The percentage of early cervical carcinoma detected can

* Appreciation is given to the Out-patient Department Supervisor, Miss Catherine Schaeffer and staff, the Resident Staff, and the Pathology Department at The Hospital for the Women of Maryland; and to Mr. Carl Uyeda, Cytologist, of the Maryland State Department of Health for their help on this work.

be greatly increased through the extensive use of the biopsy in addition to periodic pelvic examination. Routine use of the Papanicolaou smear gives an additional detection aid.

Many investigators^{3, 4, 5} have demonstrated the validity of the Papanicolaou smear. The reliability of the smear in alerting the examiner to the presence of early cancer of the cervix increases with experience.

The microscopic picture of carcinoma-in-situ as described by Bowen⁶ in 1912 and in the same year by Schottlander and Kermauner⁷ is now almost universally accepted. Carcinoma-in-situ of the cervix as a precursor of invasive carcinoma of the cervix has been described by Galvin and TeLinde⁸ and others^{9, 10} and this relationship now seems to be a real one. It is our purpose to show that when the biopsy and the Papanicolaou smear are widely used on a large group of women, carcinoma of the cervix will be detected in its early stages.

MATERIAL

This report brings up to date a previously published work¹¹ and covers the period July 1, 1950, to December 31, 1954. During that time 3526 Papanicolaou smears were performed on 2618 patients in the clinic of The Hospital for the Women of Maryland. The patients in general had gynecologic or surgical complaints but many came to the clinic for routine checkups without complaints.

A Papanicolaou smear was performed on all patients entering the clinic who were not bleeding or who had not douched within 24 hours. A biopsy was done when signs or symptoms warranted or when there was a positive smear. Unsatisfactory, suspicious, and positive smears were repeated. Suspicious biopsies were confirmed by conization.

A diagnosis of carcinoma-in-situ was made when a biopsy having the entire thickness of the epithelium present showed malignant cells, complete loss of stratification, and no evidence of invasion.

TABLE 1
*Detection of Cancer by Papanicolaou Smear and Biopsy,
The Hospital for the Women of Maryland,
July 1, 1950–December 31, 1954*

Method of Detection	Stage 0	Stage I	Stage II	Stage III	Stage IV	Total Cases
Smear alone.....	10	4		2		16
Smear and biopsy (obtained on initial visit).....	7	6				13
Smear and indicated biopsy.....		4	1	1		6
Biopsy (smear negative).....			1	1		2
Biopsy (no smear obtained).....	5	5	1	3		14
Total.....	22	19	3	7		51

RESULTS

Twenty-two patients were found to have carcinoma-in-situ, the smear alone being responsible for the detection of 10 of these and the smear and a biopsy (obtained on initial visit) being responsible for 7. Five carcinoma-in-situ lesions were detected by biopsy, no smears having been performed (Table 1). The patients who were biopsied and had no smears performed on the first visit were either bleeding, had douched within 24 hours, or else had an obvious lesion present on the cervix.

There were 19 patients in whom Stage I carcinoma was detected; 4 in whom the smear alone was responsible, 6 in whom the smear and a biopsy (obtained on initial visit) were responsible, 4 in whom the smear and an "indicated" biopsy (an obvious lesion was present) were responsible, and 5 in whom a biopsy alone (no smear obtained) was responsible. In addition to the above, 3 Stage II carcinomas and 7 Stage III carcinomas were detected by the use of smear and biopsy during the period of this study.

The total number of carcinomas of the cervix detected during the four and one-half year period of this study was 51. In 35, the smear was positive; in 2, negative; and in 14, no smears were performed and diagnosis was made by biopsy.

The cases listed in Table 1 as detected by "smear and biopsy (obtained on initial visit)"

are those in whom the biopsy was done with no evidence of a lesion present on the cervix. In screening so large a group of women biopsy of some such cases may have been overlooked.

There were 2 patients in whom the smear was negative and biopsy positive; the smear was reported in one as "unsatisfactory, too scant, please repeat," and in the other the smear was reported as "Class II, evidence of bleeding." In addition to the 2 negative smears with positive biopsies there were 4 negative smears with biopsies which showed basal cell hyperactivity and these must be included as false negative smears.

We must comment on the recognition of 2 Stage III carcinomas by smear alone. In one, a smear was taken on the initial visit and no biopsy performed. The smear was Class IV and subsequent biopsy and examination under anesthesia revealed a Stage III carcinoma of the cervix. The second had a Class IV smear and a biopsy which showed chronic cervicitis with striking hyperactivity of the epidermal layers and mitotic activity on initial visit. It was recommended that the patient be watched. Further biopsies revealed infiltrating medium-ripe carcinoma of the cervix and examination under anesthesia revealed a Stage III carcinoma of the cervix.

There were 4 patients in whom the smear was positive but although one or more consultants diagnosed the biopsy as carcinoma, there was no general agreement. These 4 patients, as well as 13 others who had positive smears and showed basal cell hyperactivity on biopsy, are being followed closely.

Twelve patients with positive smears and 30 patients with suspicious smears have showed one or more negative biopsy studies.

CASE REPORTS

Case 1

On September 30, 1952, a 38 year old para 6-5-1-0-4 was seen in the clinic complaining of pain in the back and sides for a few months.

She had had a cholecystectomy in 1951 and a cesarean section and appendectomy in 1936.

Her menstrual history was essentially negative except for complaint of dysmenorrhea. The pelvic examination showed a "small erosion around the cervical os" and slight tenderness in the adnexal areas. Impression was chronic pelvic inflammatory disease, and appropriate therapy was started. The Papanicolaou smear was reported unsatisfactory and repeated October 20, 1952. This smear returned as a Class IV malignancy. On November 13, 1952, Schiller's stain was applied to the cervix and biopsy was performed showing chronic cervicitis with areas of basal cell hyperactivity. A resmear November 13, 1952, was reported as Class IV malignancy.

On December 8, 1952, the patient was admitted to the hospital and a sharp conization of the cervix was performed. The pathologist gave a report of carcinoma-in-situ in the coned specimen.

Case 2

A 32 year old para 7-7-0-0-4 was seen in the clinic June 15, 1953, after referral from the accident room where she had been treated for a urinary tract infection two days previously. Her chief complaint was nausea, vomiting and epigastric pain which was improving. She gave a history of dyspareunia, dysmenorrhea and vaginal discharge. She stated she had intermenstrual bleeding a couple of times, but not recently. She denied post-coital spotting. She has had rectal bleeding occasionally when constipated.

On examination the cervix was "badly eroded." Biopsy of the cervix taken June 15, 1953, was reported severe acute and chronic cervicitis. Papanicolaou smear performed June 15, 1953, was reported July 14, 1953, as Class IV malignancy. In view of the Class IV smear, the patient was sent many letters requesting her to return to the clinic and finally on February 19, 1954, she did return at which time a biopsy showed "squamous metaplasia of endocervical

glands; chronic cervicitis. The biopsy is not as adequate as it could be. Rebiopsy."

The biopsy was repeated February 25, 1954, with the result "chronic cervicitis; hyperplasia of cervical epithelium. Suggest sharp cone."

On March 12, 1954, the patient was admitted to the hospital and a D & C and sharp conization of the cervix performed. Pathological diagnosis was "endometrium in secretory stage; infiltrating carcinoma of cervix."

DISCUSSION

The routine Papanicolaou smear was initiated on July 1, 1950. A comparison of the detection of cervical cancer in The Hospital for the Women of Maryland during the period 1940-1950 with the period 1950-1954 might emphasize the value of the smear in the early detection of cervical cancer (Table 2). During the period 1940-1950, cervical cancer was detected in 45 patients. Three patients had carcinoma-in-situ, 11 patients had Stage I carcinoma of the cervix, and the remaining 31 carcinomas were in Stage II, III, or IV. These 1940-1950 figures are even more significant since they are based on hospital admission records, an unknown number of advanced cases of cervical cancer seen in the clinic having been referred from the clinic for definitive treatment.

We feel that the detection of the relatively large group of cervical cancers in the early stages in the 1950-1954 period as compared to the 1940-1950 period is due at least partly to the use of the smear. But the facts that physicians and patients are being educated to the importance of early diagnosis, and the biopsy, in an effort to detect these lesions, is being used more generously certainly have been factors in the results here presented.

It is of importance to remember that the Papanicolaou smear is a detection aid rather than a diagnostic method and all suspicious or positive smears must be confirmed by biopsy before treatment of the lesion is undertaken.

It is the opinion of the authors that if car-

TABLE 2
Detection of Cancer by Biopsy, The Hospital for the Women of Maryland, July 1, 1940-June 30, 1950

Stage 0	Stage I	Stage II	Stage III	Stage IV	Total Cases
3	11	12	10	9	45

cinoma of the cervix is to be diagnosed in its early curable stages, it is almost imperative that every gynecology clinic and office should first, be constantly aware of the possibility of cancer being present; second, use the Papanicolaou smear routinely; and third, biopsy all suspicious lesions.

Many will say that this study is defeated in Baltimore by the lack of adequate cytological facilities. A period of several months may elapse before a report is made. Cytological laboratories will soon be opening, however, in our teaching hospitals and in private laboratories where a report of a smear can, in a few days, alert the physician to the possible presence of cervical cancer. In the meantime a smear would seem to the authors to be "indicated" when there is no obvious lesion present on examination of the cervix uteri. If a lesion is present then the biopsy should be employed.

SUMMARY

1. At The Hospital for the Women of Maryland cancer of the cervix was detected earlier during the years 1950-1954 than during the years 1940-1950. Education of patients and physicians, wide use of the biopsy and routine use of the Papanicolaou smear were responsible.
2. The Papanicolaou smear is a good detection aid in carcinoma of the cervix. When biopsy and smear are widely employed cancer of the cervix can be detected in the early curable stages.

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BIBLIOGRAPHY

1. BRACK, C. BERNARD: Personal communication.
2. MACFARLANE, C., STURGIS, M. C., AND FETTERMAN, F. S. Value of periodic pelvic examination in control of cancer of the uterus. *J.A.M.A.* **126**: 877, 1944.
3. AYRE, J. E. Cervical cytology in diagnosis of early cancer. *J.A.M.A.* **136**: 513, 1948.
4. MEIGS, J. V., et al. The value of the vaginal smear in the diagnosis of uterine cancer. *Surg., Gynec. & Obst.* **81**: 337, 1945.
5. PAPANICOLAOU, G. N., AND TRAUT, H. F. Diagnostic value of vaginal smears in carcinoma of uterus. *Am. J. Obst. & Gynec.* **42**: 193, 1941.
6. BOWEN, J. T. Precancerous dermatoses: A study of two cases of chronic atypical epithelial proliferation. *J. Cutan. Dis. incl. Syph.* **30**: 241, 1912.
7. SCHOTTLANDER, J., AND KERMAUNER, F. Zur Kenntnis des Uteruskarzinoms: Monographische Studie über Morphologie, Entwicklung, Wachstum, nebst Beiträgen zur Klinik der Erkrankung. Berlin, Germany, Karger, 1912.
8. GALVIN, G. A., JONES, H. W., AND TELINDE, R. W. Clinical relationship of carcinoma in situ and invasive carcinoma of the cervix. *J.A.M.A.* **149**: 744, 1952.
9. SCHILLER, W. Early diagnosis of carcinoma of cervix. *Surg., Gynec. & Obst.* **56**: 210, 1933.
10. SMITH, G. V. S., AND PEMBERTON, F. A. The picture of very early carcinoma of the uterine cervix. *Surg., Gynec., & Obst.* **59**: 1, 1934.
11. MARKLEY, R. L., ROBNETT, D. A., AND GALVIN, G. A. Detection of cervical cancer. *Obst. & Gynec.* **5**: 32, 1955.

ADENO-MALIGNUM OF THE CERVIX*

JOHN HEBB, M.D.

While different authorities place the relative incidence of squamous cell carcinoma of the cervix and cervical adeno-carcinoma from 20-1 to as high as 40-1, all are agreed that adeno-carcinoma of the cervix is a rather uncommon lesion. This probably explains the relatively little attention that has been given to grading it microscopically.

To be sure lesions have been divided into stages according to the ripeness or lack of ripeness of the tumor cells, but there have been few detailed studies of some of the subdivisions of the groups. Usually the growths are considered as falling into four main classes—stage I being made up of markedly adenomatous growths, the malignancy being shown by nuclear and cytoplasmic characteristics. Grades II and III show progressive degrees of unripeness while lesions in grade IV show marked anaplasia and the gland lumina are often so filled with cells that many microscopic fields may present pictures difficult to distinguish from epidermoid carcinoma.

Some authorities have labeled a few of the stage I growths as instances of adeno-

malignum. Novak objects to the term and Robert Meyer suggested the title "carcinoma adenomatousum." However, the term adeno-malignum has appeared so often in gynecological literature it is difficult to eradicate it. Lakin describes adeno-malignum of the cervix as follows: "It is a more or less circumscribed lesion of the cervix. Microscopically it shows comparatively little stroma. The chief histological feature is an abundance of more or less tubular glands, many of which anastomose with one another and give off numerous branches. Often these glands extend worm-like in all directions. They vary in size and are closely packed together. The glandular epithelium is of moderate size and fairly uniform, the nuclei are centrally placed, rich in chromatin, and take the haematoxylin stain deeply. Mitotic figures although present are infrequent as compared with the number in other types of adeno-carcinoma. Cell cytoplasm is finely granular and may be partially or wholly replaced by a secretion which fills the entire cell. The investing epithelium possess a few of the characteristics of malignancy and is well differentiated. Penetration of the basement membrane is infrequent."

* From the Department of Gynecology of the Hospital for the Women of Maryland.

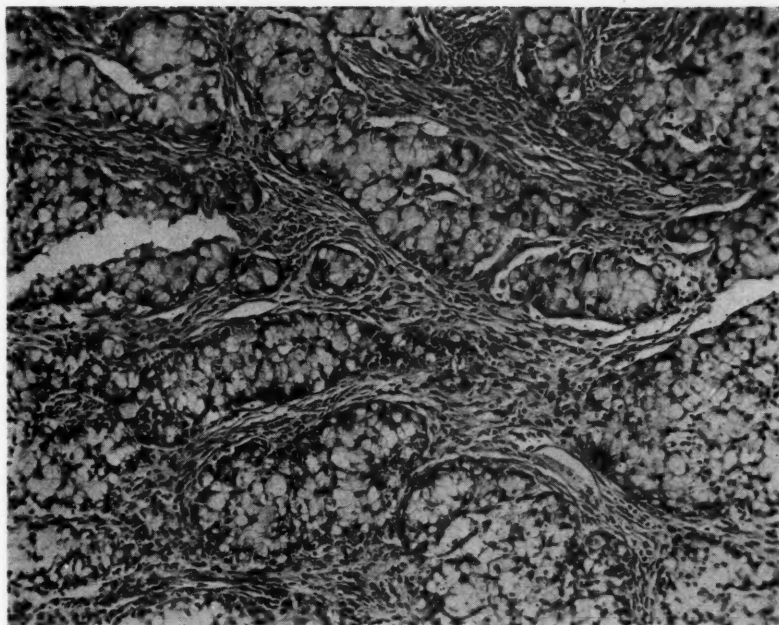


FIG. 1. This section demonstrates the abundance of simple tubular glands, anastomosing and branching with relatively little stroma. The glandular epithelium is fairly uniform and nuclei centrally placed, taking deeply the hematoxylin and eosin stain. There are relatively few mitotic figures. ($\times 100$)

All pathologists agree that an adeno-malignum is a malignant lesion but it has generally been considered to be a slow growing neoplasm which metastasizes late. However, rather few typical cases have been described in the literature and in most instances the patients have not reported for treatment until the growth was very advanced. As has been so often emphasized, while the microscopic picture does help us in prognosticating, it is not as important as the extent of the growth of the lesion.

For instance, Griffin reported two cases in multiparous women, but the lesions were in stage IV when the patients were first examined. In both cases there was bladder involvement and distant metastasis. One lived one year and the other was alive after nine months but probably succumbed shortly after this. Willis listed one case of what he described as mucoid adenocarcinoma of the cervix. The growth was also stage IV when the patient was first examined.

No details of the end results were given but she probably died in a short time.

In what still remains the most comprehensive book written on carcinoma of the cervix, even though published in 1909, Cullen writes about adeno-malignum of the cervix. He describes it as a rare form of cervical adeno-carcinoma, first reported in 1882 by Ruge and Vite. Gebhard reported two additional cases in 1895 and Krukenberg two more in 1897. After recording these cases Cullen describes in detail the only case he personally had an opportunity to study in spite of the tremendous amount of pathological material that was sent to his laboratory from all over the country.

In the German literature there are ten cases reported by pathologists with detailed histological and pathological descriptions, but clinical histories were not given. Miller reviewed 25 cases considered to be instances of adeno-malignum but concluded that only nine showed the char-

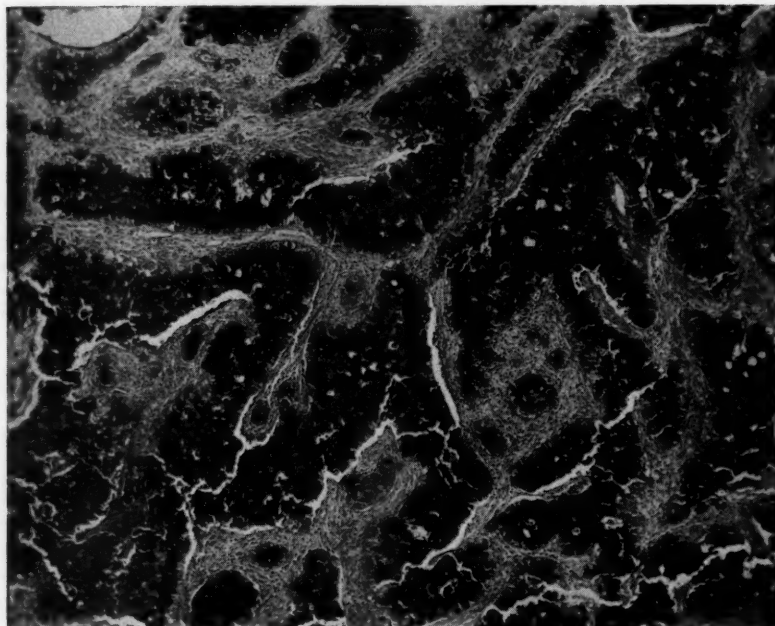


FIG. 2. Schiff's stain to demonstrate the mucin characteristic of the secretion filling the cytoplasm of the cells. ($\times 50$)

acteristic microscopic picture. A report on adeno-carcinoma of the cervix from the departments of Gynecology and Radiology of the Johns Hopkins University was published as recently as December 1954. The co-authors were Baker, H. W., Brack, C. B. and Dickson, R. J. They studied all the cases of adeno-carcinoma of the cervix seen in the Gynecological Department between the years 1940-1948. There were 31 cases in all and seven of these were stage I adeno-carcinoma. There were no instances of adeno-malignum nor did close microscopic study of the seven cases in stage I show any instance of close resemblance to the case I am reporting from the Hospital for the Women of Maryland. It is therefore fair, I think, to conclude that a true adeno-malignum of the cervix is a rare lesion.

Recently in the Hospital for the Women of Maryland, a patient was operated on whose cervical lesion presented microscopically a picture most characteristic of adeno-malignum. Because

of the rarity of the condition and also because this patient did report for treatment when the lesion was in its very earliest stage, I feel a report of this case is justified.

A 31 year old woman was admitted to the Gynecological service on August 17, 1953 with a complaint of intermenstrual bleeding. This had been noticed on four occasions. The rest of the history was non-contributory. The general examination was negative except for the gynecological findings. On the anterior lip of the cervix there was a small lesion which was slightly indurated and bled when touched. The uterus was freely movable. There was no evidence of any extension of the growth to the parametria. There was no fixation of bladder or rectum. Rectal examination confirmed pelvic findings. On August 17, 1953 a dilatation of cervix and curettage of the endometrium was carried out and at the same time a sharp cone biopsy was taken from the indurated area of the cervix. The microscopic study of the curettement

showed no pathology; but the biopsy was reported as showing an adeno-carcinoma arising in the mucoid glands of the cervix.

On September 1, 1953 a radical Wertheim operation was performed by Dr. Leo Brady with removal of both tubes and ovaries, the external iliac, internal iliac and obturator glands. A wide dissection of the parametria was carried out and a long vaginal cuff removed. Several of the glands were enlarged and it was expected that they would show malignancy. However, microscopic examination showed no extension of the carcinoma to the glands or to the parametria.

The following is the description I dictated of the tissue removed: "On the anterior lip at one o'clock there is a lesion which measured 1.5 cm. in diameter. It begins a little beyond the mucocutaneous junction and extends within the cervical os. This lesion is very firm. It is easily distinguishable from the normal cervical tissue. Its surface is a bit jagged and there is a moderate amount of hyperemia in this area. On bisection of the uterus the lesion seems to confine itself almost entirely to the endocervix extending 2.5 cm. within the os. At its widest point it is 1 cm. in depth and continues within 1 cm. of the outside wall of the uterus and cervix. It has a very closely packed, avascular, dense white appearance in contrast to the more loosely packed stroma of the cervix and uterus. Microscopic examination: the cervical lesion extends along the canal for a distance of one inch. Along the cervical canal there is a proliferation of mucoid secreting epithelium still maintaining a differentiated pattern. There are areas where columns of the cells appear within muscle bundles suggesting an early invasive tendency. There are a few mitotic figures. There is some irregularity in the size and shape of the nuclei. Ovaries, tubes and body of uterus show no malignancy."

The patient had an uncomplicated convalescence and was discharged from the hospital on

the 13th postoperative day. Fifteen months have elapsed since the time of operation. She has no symptoms and pelvic examinations are entirely negative. I feel that this patient is cured and will probably have no further trouble. My reasons for believing this are (1) the patient reported for treatment when the lesion was in its earliest stage and (2) the microscopic picture of adenomalignum indicates that the lesion is probably very slow growing and metastases late. However, I realize it is dangerous to prognosticate when so few cases have been seen.

*The Hospital for the Women of Maryland
Baltimore 17, Maryland*

REFERENCES

- BAKER, H. W. ET AL. Adenocarcinoma of the cervix uteri, *Obstetrics and Gynecology*, **4**: 664-669, December, 1954.
- CULLEN, T. S. *Cancer of the uterus*; Appleton and Co., N. Y., 1900.
- GRIFFIN, M. A. Two cases of malignant mucus-secreting cystadenoma of the cervix uteri; *Journal of Pathology and Bacteriology*, **46**: 379-381, 1938.
- LAKIN, W., HALBORN AND SEITZ. *Biologie & Pathologie des Weiben*, vol. iv, p. 750-753.
- MARTZLOFF, K. H. Carcinoma of the cervix uteri; *Bulletin of the Johns Hopkins Hospital*, **34**: 141-149 and 184-195, 1923.
- MEYER, R., HENKE AND LUBARSCH. *Handb. und Spez. Pathol., Anat. und Histologie des Weiben*, vol. 3, Springer & Bedlin, 1939.
- MILLER, J. W. Ueber den Schleimkrebs des Collum uteri; *Archiv f. Gynaek.*, **29**: 76-84, 1909.
- NILSSON, F. Erfahrungen über Adenocarcinoma Colli uteri; *Acta Radiologica*, **14**: 283-330, 1933.
- NORRIS, C. C. Adenocarcinoma; *American Journal of Cancer*, **27**: 653-675, 1936.
- RUGE, C. AND VEIT, J. Zur Pathologie der Vaginalportion; *Zeitschr. f. Geburts. u. Gynäk.*, **2**: 415-476, 1898.
- RUGE, C. Die Erosion und das Ectropium, sowie über die Herkunft des Cylinderepithels an der Vaginalportion bei Erosion; *Z.G.G.*, **5**: 248-255, 1880.
- RUGE, C. Über die Erosionen an der Vaginalportion—sowie ein kritischer Überblick über deren Literatur; *Z.G.G.*, **8**: 405-459, 1882.
- VEIT, J. Zur normalen Anatomie der Portio vaginalis uteri; *Z.G.G.*, **5**: 232-247, 1880.
- WILLIS, R. A. Some aspects of pathology of uterine carcinoma; *Medical Journal of Australia*, **2**: 293-297, Sept. 5, 1931.

Component Medical Societies

ALLEGANY-GARRETT COUNTY MEDICAL SOCIETY

LESLIE E. DAUGHERTY, M.D.

Journal Representative

DR. BAUMGARTNER IS RETURNED TO OAKLAND COUNCIL

Dr. E. I. Baumgartner of Oakland, Maryland, who has served over sixteen years on the city council, was returned to office for another term in the recent annual municipal election. Dr. Baumgartner was elected to serve for two years.

NURSES HOLD DISTRICT MEETING IN WESTERN MARYLAND

District One, comprising nurses of Allegany and Garrett Counties, met at the Fort Cumberland Hotel in executive session and discussed among many subjects, a set of registered rules to be used by the Nurse's Association.

The main topic for discussion was an increase in private duty pay for Baltimore City nurses. It was stated that Baltimore nurses cannot increase their pay without a vote of confidence from Allegany and Garrett and other outlying counties in the state.

The pay rate adopted was fifteen dollars, for eight hours duty. The rate in Cumberland at the present is twelve dollars.

Just how poor people can afford to hire a nurse and nurses still make an adequate and satisfying living, is an ever increasing problem.

CUMBERLAND PSYCHIATRIST ADDRESSES WOMEN'S CLUB

Dr. Richard Trevaskis Jr., Psychiatrist, was the guest speaker at the recent meeting of the Cumberland Business and Professional Women's Club, held in the Central Y.M.C.A.

Dr. Trevaskis's subject was "Some Aspects of Human Behavior."

FREDERICK COUNTY MEDICAL SOCIETY

LOUIS R. SCHOOLMAN, M.D.

Journal Representative

The March meeting of the Society was held on the 16th. Dr. Milton Markowitz of Baltimore spoke on the prophylaxis of rheumatic fever. Three resolutions sent by Dr. Diggs, Secretary of the Medical and Chirurgical Faculty, concerning a schedule of divided fees under the Blue Shield, the establishment of a committee on geriatrics and gerontology and the establishment of a school for physical therapy were approved. The 28 members present volunteered to administer the Salk vaccine to the first and second grade children in the county schools.

During March, two members of the Society were patients in the Frederick Memorial Hospital. Dr. Lawrence H. Fahrney was treated for pneumonitis and Dr. Franklin M. Bierly for minor injuries sustained in an auto accident. Both physicians are now busily attending patients.

HOSPITAL EVENTS

The Board of Managers and the Trustees of the Frederick Memorial Hospital gave a Kaffee Klatsch for the members of the Staff. This inaugurated a new policy of informal meetings where comments and ideas can be freely interchanged. The coffee and doughnuts were fine and were surpassed only by the general cordiality.

At the March meeting of the Department of Medicine, Dr. Robert Furie completed a series of lectures on the physiology and pathology of the liver. The department is now planning a formal postgraduate course in the basic sciences.

MONTGOMERY COUNTY MEDICAL SOCIETY

MAYNARD COHEN, M.D.

Journal Representative

There were two speakers at the April meeting of the Montgomery County Medical Society, held

April 19, 1955, at Olney Inn, Olney, Maryland. General Lewis Hershey spoke on "Some Pertinent Aspects of the Montgomery County Blood Procurement Program." Following General Hershey was a talk on "The Role of Psychiatry in Every Day Practice," by Doctor George H. Preston, of the staff of Chestnut Lodge, Rockville, formerly Commissioner of Mental Hygiene of the State of Maryland. Doctor Henry Jaeger, Chairman of the Civil Defense Committee, arranged for Mr. Dunnington's Capital Area Disaster Mobile Unit to be on display at the Olney Inn during the intermission between dinner and the guest speakers.

Doctors Bernard R. Ostrow and William J. Peeples have become active members of the Society, and Dr. John R. Conley has become an affiliate member.

The Executive Committee has recommended to the membership the following Priority Schedule for administration of Poliomyelitis Vaccine, as proposed by the Maryland State Department of Health:

First Priority: All first and second grade children.

Second Priority: All kindergarten and preschool children over one year of age.

Third Priority: Pregnant women.

Fourth Priority: All other elementary school children.

Fifth Priority: Older individuals in households with elementary school children.

WICOMICO COUNTY MEDICAL SOCIETY

WILLIAM S. WOMACK, M.D.

Journal Representative

A meeting of the Wicomico County Medical Society was held in the Watson Memorial Building, Salisbury, on March 7, 1955. Twenty-five members and two guests were present at the meeting.

It is of especial note that the Wicomico County Medical Society was instrumental in the passage of a bill in the State Senate recently which requires rabies immunization shots to all dogs. These shots are compulsory now throughout the State of Maryland.

The doctors who were instrumental in forming the committee which accomplished this were Dr. Seth H. Hurdle, the County Health Officer; Dr. William Morgan, a Pediatrician in Salisbury, and Dr. Richard Saunderson, a Pediatrician.

The speaker of the evening was Dr. Isodor Muffson, who is Associate Professor of Medicine of Columbia University Medical School, New York. His talk was on the treatment of "Peripheral Arterial Obliterative Disease" with some cases of the use of intra-arterial Histamine.

RESTRICTIONS ON VA DENTAL CARE

The AMA Washington Letter, No. 84-17

On April 18 the House passed without amendment H.R. 5100, a bill which would make permanent certain restrictions which are now in effect regarding VA dental care. Treatment for service-connected, non-compensable cases would be limited to a "one-time" basis if brought within a year after discharge. . . . Rhode Island General Assembly memorialized Congress requesting Congress to support the Administration's \$1,250,000 mental health survey proposal.

Necrology

A. S. CHALFANT, M.D., *Chairman*

Memoir Committee

John Stanley Grabill, M.D.

1897-1955

It is with sincere regret that we announce the sudden death of Dr. John Stanley Grabill on January 30, 1955.

Dr. Grabill was born September 24, 1897, at Ridgely, Caroline County, Maryland, the son of John Walter Grabill and Alice Maude Stevenson Grabill.

He attended Baltimore City College and Mount Vernon Collegiate Institute before entering the University of Maryland School of Medicine from where he was graduated in 1921.

After a one year internship in Mercy Hospital, Baltimore, he began the practice of medicine at Woodbine, Maryland. Some two years later he moved to Mount Airy, Maryland where he practiced for the next thirty years until his death.

He was a member and vestryman of the St. James Episcopal Church of Mount Airy, a member and past president of the Kiwanis Club of Mount Airy, and a member of the Masonic Order. He was a member of the Carroll County Medical Society and an associate member of the Howard County Medical Society, and also a member of the Committee on Rural Medicine of the Medical and Chirurgical Faculty.

He was active in Carroll County civic life and at one time served on the Board of Elections.

His passing is mourned by his many friends and by the families he served so faithfully for so many years.

Wilfred K. Konigsberg, M.D.

1907-1955

Dr. Konigsberg was born in New York City in 1907. He attended public schools in that city and received his A.B. from Columbia University in 1928.

He received his M.A. from Columbia in 1929 and matriculated at the University of Maryland Medical School that same year and received his M.D. in 1933. Following his graduation from Medical School, he received all of his post-graduate training at Sinai Hospital of Baltimore, first as an interne and then through the Residency in Obstetrics. He was intimately associated with both Sinai and Lutheran Hospitals where he served with distinction. At the time of his sudden and untimely death on February 21st, 1955, he was attending Obstetrician at Sinai Hospital.

Above all else, Dr. Konigsberg was dedicated to his family which comprised a wife and four daughters. Most of his leisure time was devoted to this family life. However, Dr. Konigsberg had a wide and varied range of cultural interests. He was an omnivorous reader of literature, ranging from the classics to the modern novel. Good music was a constant companion at his office and at his home. A perennial contributor to the Baltimore Symphony, he was in regular attendance at the performances of that orchestra and other visiting musical groups. Whenever time would permit, he visited the local museums, and on occasion would purchase paintings for his office and his home.

His interest in the Arts, however, was not sufficient to satisfy this multi-faceted individual. His versatility was such that he could descend from the library to the sports arena and follow various sports activities, particularly the Orioles, with avid interest. He was a thoroughly enjoyable conversationalist. His patients remember him not only for his medical competence but because of his friendly and sympathetic personal response to their problems. He was often heard to say, when asked why he preferred obstetrics to other branches of medicine, that one of the compensations in obstetrics was that its practice was so identified with the joys of living.

Dr. Konigsberg was a member of the Baltimore

City Medical Society and the Medical and Chirurgical Faculty of the State of Maryland.

Nathan H. Shpritz, M.D.

1898-1955

Doctor Shpritz came to America at the tender age of four years. He attended the public schools in Baltimore, and graduated with honors from Baltimore Polytechnic Institute. He then matriculated to The Johns Hopkins University and received his A.B. in 1920, followed by his Medical Degree from The Johns Hopkins Medical School in 1924.

Dr. Shpritz interned at the Sinai Hospital and then entered the general practice of medicine which he successfully followed for twenty-nine years. He was a man who loved humanity and the practice of our healing art. He lived by the Golden Rule, and always believed that true satisfaction in life could only be obtained through giving and helping his fellow man. Dr. Shpritz typified that real humanitarian spirit, so symbolic of the true family doctor.

Surviving Dr. Shpritz are his wife, the former Martha Becker and two children, Mrs. Donald Cohen and Neill, who is attending George Washington University.

ASSOCIATION SUPPORTS NEW SCIENTIST DEFERMENT PROGRAM

The AMA Washington Letter, No. 84-17

The American Medical Association has indorsed in principle H.R. 2847, proposing a new system for deferring scientific students, including medical, from active military duty. The Association's position was outlined in a letter to a House Armed Services subcommittee by Dr. George F. Lull, AMA secretary and general manager. He said, however, "We see little value in requiring a disruption in training or important scientific activities for a period of three months while the deferment determination is made, and recommend that provision be made for application for such deferment sufficiently prior to the date of scheduled induction as to avoid the necessity for such deferment." The association also suggested that a special reserve enlistment, one not requiring an initial period of active duty training, be utilized for men to be deferred from the draft.

At the hearing on the bill, Defense Mobilization Director Arthur S. Flemming objected to the measure, saying that draft officials and the administration's proposed new six-month training plan would take care of the problem. In reply, Representative Carl Hinshaw (R., Calif.), sponsor of the bill, said that the present draft deferment machinery was not functioning properly, as scientists urgently needed in the scientific race with Russia are being inducted and put to work in the Army doing kitchen police work and picking up cigaret butts.



Library



"Books shall be thy companions; bookcases and shelves, thy pleasure-nooks and gardens." *ibn Tibbon*

RECENT PUBLICATIONS BY FACULTY MEMBERS*

- Naquin, H. A. Argyll Robertson pupil. *Am. Jr. Ophthal.* **38**: 23-33, 1954.
- Naquin, H. A. Exenteration of the orbit. *Arch. Ophthal.* **51**: 850-862, 1954.
- Novak, E. R. Radioresistant cervical cancer. *Obst. and Gynec.* **4**: 251-259, 1954.
- Novak, E. R., Schoen, I., Konwaler, B. E. The sex incidence of the fetus or child in maternal choriocarcinoma. *Am. Jr. of Obst. and Gynec.* **67**: 1134-1138, 1954.
- Novak, E., and Seah, S. S. Choriocarcinoma of the uterus. *Am. Jr. of Obst. and Gynec.* **67**: 933-961, 1954.
- Novak, E., Woodruff, J. D., and Novak, E. R. Probable mesonephric origin of certain female tumors. *Am. Jr. of Obst. and Gynec.* **68**: 1222-1242, 1954.
- Novak, E. R. Relationship of endometrial hyperplasia and adenocarcinoma of the uterine fundus. *J. A. M. A.* **154**: 217-220, 1954.
- Novak, E. R. The menopause. *J. A. M. A.* **156**: 575-578, 1954.
- Osler, A. G., Hardy, P. H., and Sharp, J. T. The fixation of complement by human sera and alcoholic extracts of human cardiac tissue. *Am. Jr. of Syph. Gon. and Ven. Dis.* **38**: 554-566, 1954.
- Parker, R. T., Menon, P. G., Merideth, A. M., Snyder, M. J., and Woodward, T. E. Persistence of Rickettsia Rickettsii in a patient recovered from rocky mountain spotted fever. *Jr. of Immunology* **73**: 383-386, 1954.
- Paulson, M., and Harvey, J. C. Hematological alterations after total gastrectomy. *J. A. M. A.* **156**: 1556-1560, 1954.
- Peirce, E. C., II. Percutaneous femoral artery aortography: Its use in evaluation in retroperitoneal masses. *Am. Pract. and Dig. of Treat.* **5**: 25, 1954.
- Peirce, E. C., II, and Polley, V. B. Necrosis following intravenous use of neosynephrine. *New Eng. Jr. of Med.* **250**: 114-115, 1954.
- Reen, R. V., and Pearson, P. B. Nutritional studies with the white-throated wood rat. *Science* **120**: 571, 1954.
- Reese, F. M. Bilateral homonymous hemianopsia. *Am. Jr. of Ophthal.* **38**: pt. 1: 44-57, 1954.
- Reimann, D. L. Some nineteenth century contributions to cancer detection. *Obst. and Gynec. Surv.* **9**: 495-500, 1954.
- Richter, C. P., and Mosier, H. D., Jr. Maximum sodium chloride intake and thirst in domesticated and wild Norway rats. *Am. Jr. of Physiology* **176**: 213-222, 1954.
- Richter, C. P., and Rice, K. K. Comparison of the effects produced by fasting on gross bodily activity of wild and domesticated Norway rats. *Ann. of Int. Med.* **179**: 305-308, 1954.
- Richter, C. P., and Uhlenhuth, E. H. Comparison of the effects of gonadectomy on spontaneous activity of wild and domesticated Norway rats. *Endocrinology* **54**: 311-322, 1954.
- Robinson, H. M. Role of antibiotics in therapy of acne. *Arch. of Derm. and Syph.* **69**: 414-417, 1954.
- Robinson, H. M., Jr., and Cohen, M. M. Preliminary and short report: Magnamycin in the treatment of granuloma inguinale. *Jr. of Invest. Derm.* **22**: 263-264, 1954.
- Robinson, H. M., Jr. Uses and abuses of antibiotics in the treatment of dermatoses. *U. S. Armed Forces Medical Jr.* **5**: 953-967, 1954.
- Robinson, H. M., Jr., and Robinson, R. C. V. Treatment of dermatoses with local application of hydrocortisone acetate. *J. A. M. A.* **155**: 1213-1216, 1954.
- Robinson, H. M., and Robinson, R. C. V. A new approach to the local treatment of alopecia areata. *Southern M. J.* **47**: 894-897, 1954.
- Robinson, H. M., Jr., Zeligman, I., Robinson, R. C. V., Cohen, M. M., and Shapiro, A. Erythromycin in treatment of dermatoses. Report on 1,695 patients. *Arch. Derm. Syph.* **70**: 325-330, 1954.
- Robinson, H. M. Moniliasis complicating antibiotic therapy. *Arch. Derm. and Syph.* **70**: 640-652, 1954.
- Robinson, H. M., Jr., Bacharach, D., and Strahan, J. Magnamycin ointment in the treatment of the pyoderma. *Bull. Sch. of Med., Univ. of Md.* **39**: 54-55, 1954.

* Continued from the May MARYLAND STATE MEDICAL JOURNAL.

- Robinson, R. C. V. Comparative incidence of xanthelasma in Jews and Gentiles. *Arch. Derm. and Syph.* **70**: 662-663, 1954.
- Robinson, R. C. V. Pyrilamine maleate in the treatment of pruritic dermatoses. *Bull. Sch. of Med., Univ. of Md.* **39**: 1-4, 1954.
- Rosen, D. A., Becker, B., Maengyn-Davies, G. D., and Friedenwald, J. S. The influence of heparin on the cortisone nephropathy of the rabbit. *Bull. Johns Hopkins Hosp.* **95**: 144-146, 1954.
- Rothmund, H. I. M., Rider, R. V., and Harper, P. A field study of retrolental fibroplasia in Maryland. *Pediatrics* **14**: 455-461, 1954.
- Rudin, L. N., and Cronin, D. J. Mechanical hip extensor. *J. A. M. A.* **156**: 35-36, 1954.
- Savage, J. E. Management of the fetal arms in breech extraction. (A method to facilitate application of Piper forceps.) *Obstetrics and Gynecology* **3**: 55-57, 1954.
- Schaffer, A. M., and Markowitz, M. Hypertension treated by nephrectomy: a report of 4 additional cases and a re-evaluation of prognosis and criteria for operation. *Am. J. M. Sc.* **227**: 417-425, 1954.
- Schulman, J. L., and Saturen, P. Glycogen storage disease of the liver. *Pediatrics* **14**: 632-645, 1954.
- Scott, R. B., and Te Linde, R. W. Clinical external endometriosis. *Obstetrics and Gynecology* **4**: 502-510, 1954.
- Scott, W. W. The urologic and physiologic aspects of ureteral transplantation. *Am. J. Obst. and Gynec.* **68**: 1301-1310, 1954.
- Scott, W. W. The diagnosis and treatment of operable and inoperable prostatic cancer. *J. M. A. Alabama* **23**: 262-267, 1954.
- Sigelman, S., and Friedenwald, J. S. Mitotic and wound-healing activities of the corneal epithelium. *Arch. Ophth.* **52**: 46-57, 1954.
- Singewald, M. L. Ballistocardiography: past, present, future. *Ann. Inst. Med.* **41**: 1124-1133, 1954.
- Sloan, R. D., Hanlon, C. R., and Scott, H. W. Tuberculosis and congenital cyanotic heart disease. *Am. J. Med.* **16**: 528-534, 1954.
- Sloan, R. D., Stafford, E. S., Singewald, M. L., and Sinn, C. M. Meckel's diverticulum. *Am. Jr. of Roentgenol.* **71**: 64-75, 1954.
- Smith, D. C., and Ferguson, F. P. Effects of acute decompression stress upon plasma electrolytes and renal function in anesthetized dogs. *Bull. Sch. of Med. Univ. of Md.* **39**: 39-50, 1954.
- Smith, E. W., and Conley, C. L. Clinical features of the genetic variants of sickle cell disease. *Bull. Johns Hopkins Hosp.* **94**: 289-318, 1954.
- Spicknall, C. G. Amebic granuloma. Report of four cases and review of the literature. *New Eng. Jr. of Med.* **250**: 1055-1062, 1954.
- Stafford, E. S., Turner, T. B., and Goldman, L. On the permanence of anti-tetanus immunization. *Ann. Surg.* **140**: 563-568, 1954.
- Stran, H. M., and Jones, G. E. S. Some properties of human urinary Gonadotrophins as elaborated by filter paper electrophoresis. *Bull. Johns Hopkins Hosp.* **95**: 162-169, 1954.
- Sturtevant, V. R., Sato, K. K., McCowan, D., and Krause, L. A. M. Clinicopathologic case report. *Delaware Med. Jr.* **26**: 160-165, 1954.
- Sullivan, M., Bereston, E. S., and Wood, J. L. Study of nutritional requirements of trichopyton tohsurans. *Arch. of Derm. and Syph.* **70**: 84-90, 1954.
- Sutton, L. S., and Brooke, C. C. Venezuelan equine encephalomyelitis due to vaccination in man. *J. A. M. A.* **155**: 1473, 1954.
- Tabor, H. Metabolic studies on histidine, histamine, and related imidazoles. *Pharm. Rev.* **6**: 299-343, 1954.
- Talbot, S. A., Deuchar, D. C., Davis, F. W., Jr., and Scarborough, W. R. The aperiodic ballistocardiograph. *Bull. Johns Hopkins Hosp.* **94**: 27-33, 1954.
- Teitelbaum, P., and Stellar, E. Recovery from the failure to eat produced by hypothalamic lesions. *Science* **120**: 894-895, 1954.
- TeLinde, R. W. and Kelly, Howard Atwood. Presidential Address. *Am. Jr. of Obst. and Gyn.* **68**: 1203-1211, 1954.
- TeLinde, R. W., Jones, H. W., and Galvin, G. A. What are the earliest endometrial changes to justify a diagnosis of endometrial cancer? *Obst. and Gynec. Surv.* **9**: 568-570, 1954.
- Tumulty, P. A. The clinical course of systemic lupus erythematosus. *J. A. M. A.* **156**: 947-953, 1954.
- Turner, T. B., and Hollander, D. H. Studies on the mechanism of action of cortisone in experimental syphilis. *Am. Jr. of Syph.* **38**: 371-387, 1954.
- Turner, T. B., and Schaeffer, K. The comparative effect of various antibiotics in experimental syphilis. *Am. Jr. of Syph., Gon., and Ven. Dis.* **38**: 81-91, 1954.
- Turner, T. B., Stafford, E. S., and Goldman, L. Studies on the duration of protection afforded by active immunization against tetanus. *Bull. Johns Hopkins Hosp.* **94**: 204-217, 1954.
- Van Metre, T. E., Jr. Pneumococcal pneumonia treated with antibiotics. *New Eng. Jr. of Med.* **251**: 1048-1052, 1954.
- Wade, R., and Jones, H. W. Inhibition of human endometrial adenosine triphosphatase by progesterone. *Obst. and Gynec.* **3**: 608-614, 1954.
- Wagner, J. A., Slager, U. T., and Tucker, L. Hypo-

- parathyroidism with cerebral calcification: I. Report of a case. *Bull. Sch. Med. Univ. of Md.* **39**: 102-109, 1954.
- Walker, A. E. Changing role of neurological surgery in medicine. *J. A. M. A.* **156**: 833-835, 1954.
- Walker, S. H. Therapy of acute purulent otitis media with dibenzylethylenediamine dipenicillin G. *Jr. Pediatrics* **44**: 50-54, 1954.
- Ward, G. E., and Chambers, R. G. Management of intraoral cancer. *Am. Surg.* **20**: 1297-1304, 1954.
- Ward, G. E., Cantrell, J. R., and Allan, W. B. The surgical treatment of lingual thyroid. *Ann. of Surg.* **139**: 536-546, 1954.
- Weiss, M., and Salzman, L. Paranoid state during therapy with isoniazid in pulmonary tuberculosis. *Med. Ann. of the D. C.* **23**: 376-378, 414, 1954.
- Wharton, L. R. Exercises for stress incontinence. *Mod. Med.* **22**: 105, 1954.
- Whitehorn, J. C. and Betz, B. J. A study of psychotherapeutic relationships between physicians and schizophrenic patients. *Am. Jr. of Psychiatry.* **3**: 321-331, 1954.
- Whitehorn, J. C. I. Hateful self-distrust: a problem in the treatment of schizophrenic patients. *Am. Jr. of Psychiatry* **3**: 420-421, 1954.
- Wilder, E. M. The use of local anesthesia in minor gynecological surgery. *Internat. Jr. of Anesthesia.* **2**: 66-69, 1954.
- Wilkins, L. Tools and methods of diagnosis and new trends in the treatment of endocrine disorders. *Pediatrics* **13**: 393-402, 1954.
- Wiswell, J. G., Zierler, K. L., Fasano, M. B., and Asper, S. P., Jr. The effects of L-thyroxine on the metabolism of tissues in vitro. *Bull. Johns Hopkins Hosp.* **94**: 94-104, 1954.
- Whittlesey, P. The effects of pentobarbital on the metabolism of ethyl alcohol in dogs. *Bull. Johns Hopkins Hosp.* **95**: 81-89, 1954.
- Woodruff, J. D., and Everett, H. S. Prognosis in childhood urinary tract infections in girls. *Am. Jr. Obst. and Gynec.* **68**: 798-809, 1954.
- Woodruff, J. D., and Novak, E. R. Papillary serous tumors of the ovary. *Am. Jr. of Obst. and Gynec.* **67**: 1112-1126, 1954.
- Woods, A. C. Pathogenesis and treatment of ocular T. B., *Arch. Ophthalm.* **52**: 174-196, 1954.
- Woods, A. C., Becker, B., and Wood, R. Studies in experimental ocular tuberculosis. *Arch. of Ophth.* **51**: 241-255, 1954.
- Woods, A. C., Jacobs, L., Wood, R. M., and Cook, M. K. A study of the role of toxoplasmosis in adult chorioretinitis. *Am. Jr. of Ophthalm.* **37**: 163-177, 1954.
- Zeligman, I. Experimental contact dermatitis I. Dinitrochlorobenzene contact dermatitis in guinea pigs. *Jr. of Invest. Derm.* **22**: 109-120, 1954.
- Zeligman, I., and Scalia, S. P. Dermatologic manifestations of mongolism. *Arch. Derm. and Syph.* **69**: 342-344, 1954.

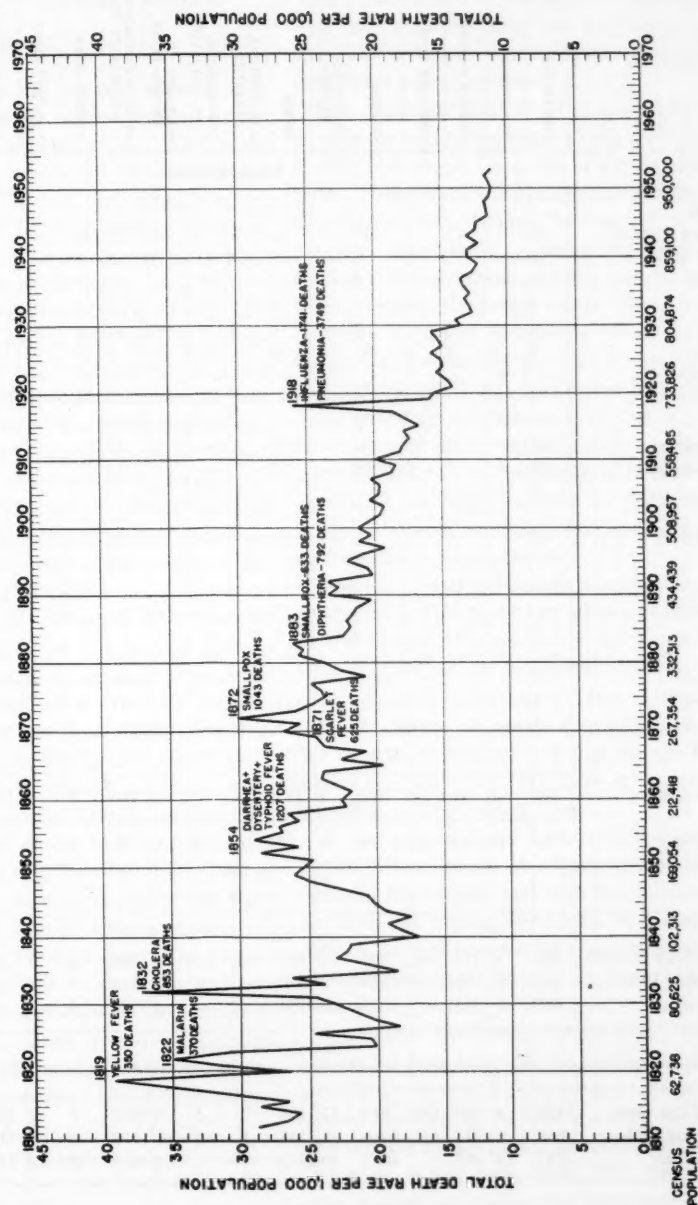
DR. HAWLEY TESTIFIES ON CIVIL DEFENSE PLANS

The AMA Washington Letter, No. 84-17

Dr. Paul R. Hawley, Director of the American College of Surgeons and member of the Hoover Commission Medical Task Force, reminded an Armed Services subcommittee investigating civil defense that the civilian population will be actively involved in any future war. The U. S. must plan for "medical care for the entire population for the duration," he said. He suggested that "all fixed medical plants in the country might be pooled," with their facilities available for both military and civilian patients. He also proposed that an "unprejudiced, unbiased commission" of medical and non-medical members be set up to study the problem and "come up with a solution," and cited the need for more "federal stimulus and coordination." "It's going to end up a federal responsibility," he added. Dr. Hawley testified as an individual. Secretary of HEW Hobby, testifying at the same hearing, outlined the civil defense duties delegated to her department, and reported on PHS's new emergency reserve corps. By means of short courses, the corps expects to train 2,000 reserve officers by the end of fiscal '55 and 3,000 more during the next fiscal year. Physicians, nurses and sanitary engineers are being recruited.

Health Departments

BALTIMORE CITY HEALTH DEPARTMENT BALTIMORE CONQUERS ITS PESTILENCES TOTAL DEATH RATE PER 1,000 POPULATION



STATE OF MARYLAND DEPARTMENT OF HEALTH
MONTHLY COMMUNICABLE DISEASE REPORT

Case Reports Received during 4-week Period, April 29-May 26, 1955

	CHICKENPOX	DIPHTHERIA	GERMAN MEASLES	HEPATITIS, INFECT.	MEASLES	MENINGITIS, MENINGOCOCCUS	MUMPS	POLLIOVELLITIS, PARALYTIC	POLLIOVELLITIS, NON-PARALYTIC	ROCKY MT. SPOTTED FEVER	STREP. SORE THROAT INCL. SCARLET FEVER	TYPHOID FEVER	UNDULANT FEVER	WHOOPING COUGH	TUBERCULOSIS, RESPIRATORY	SYPHILIS, PRIMARY AND SECONDARY	GONORRHEA	OTHER DISEASES	DEATHS Influenza and pneumonia
Total, 4 weeks																			
Local areas																			
Baltimore County....	52	—	42	1	37	—	26	3	1	—	22	—	—	5	13	1	8	—	5
Anne Arundel.....	16	—	1	1	6	—	—	—	—	1	8	—	—	1	9	—	1	—	2
Howard.....	1	—	—	—	2	—	—	—	—	—	—	—	—	—	—	—	1	—	1
Harford.....	1	—	—	1	—	—	2	—	—	—	2	—	—	—	3	—	—	—	—
Carroll.....	1	—	—	—	2	—	4	2	—	—	22	—	—	—	1	—	1	—	1
Frederick.....	8	1	2	6	97	—	30	—	—	—	5	—	—	—	7	—	2	—	—
Washington.....	—	—	—	1	—	—	—	—	—	—	—	—	—	1	4	—	1	—	2
Allegany.....	3	—	—	—	1	—	—	—	—	—	4	—	—	—	1	—	—	—	—
Garrett.....	—	—	—	—	1	—	—	1	—	—	—	—	—	—	1	—	1	—	—
Montgomery.....	13	—	2	15	86	—	10	2	—	2	37	—	—	—	8	—	1	—	4
Prince George's.....	19	—	7	2	53	—	10	—	—	—	22	—	—	6	9	—	—	—	2
Calvert.....	3	—	—	—	—	—	—	—	—	—	—	—	—	3	—	—	1	—	1
Charles.....	—	—	—	—	1	—	—	—	—	—	—	—	—	—	1	—	—	—	2
Saint Mary's.....	17	—	3	1	5	—	10	—	—	—	28	—	—	2	2	—	—	—	—
Cecil.....	—	1	—	—	—	—	—	—	—	—	5	—	—	1	1	—	—	—	1
Kent.....	2	—	11	—	—	—	—	—	—	—	—	—	—	—	1	—	—	—	1
Queen Anne's.....	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Caroline.....	2	—	—	—	—	—	6	—	—	—	—	—	—	7	4	—	—	—	—
Talbot.....	—	—	—	—	—	1	—	—	—	1	—	—	—	—	—	—	—	—	1
Dorchester.....	2	—	—	—	—	—	—	—	—	1	—	—	—	—	3	—	2	—	—
Wicomico.....	2	—	—	—	1	—	12	—	—	—	11	—	—	—	2	—	5	—	—
Worcester.....	7	—	—	4	1	1	5	—	—	1	—	1	—	—	3	—	—	—	—
Somerset.....	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—	1	—	—
Total Counties.....	149	2	68	32	293	2	115	8	1	6	166	1	0	26	74	1	25	—	23
Baltimore City.....	92	0	43	12	34	2	76	0	0	0	40	1	0	24	101	12	503	—	11
State																			
April 29-May 26, 1955.....	241	2	111	44	327	4	191	8	1	6	206	2	0	50	175	13	528	—	34
Same period 1954.....	302	0	48	74	1869	3	380	1	0	5	174	2	2	58	167	10	626	—	31
5-year median.....	465	1	133	—	875	5	314	2	—	2	156	2	3	36	221	19	521	—	42
Cumulative totals																			
State																			
Year 1955 to date.....	1829	3	339	189	976	17	1108	11	2	6	2008	2	0	188	812	68	2772	—	322
Same period 1954.....	2656	4	213	471	9966	21	2148	4	0	5	1116	6	3	358	884	75	2937	—	282
5-year median.....	2593	14	482	—	4095	40	1478	9	—	2	978	9	12	251	1052	115	2709	—	335



Blue Cross - Blue Shield



BLUE CROSS AND THE PUBLIC

ABRAHAM OSEROFF*

As a movement inspiring popular interest and participation, Blue Cross is almost without equal in its impact upon the general public. With more than one-fourth of the population of this country enrolled, Blue Cross is a national institution of broad significance. The size of its membership, however, does not tell the full story of the unique place Blue Cross occupies on the American scene.

Here we have an outstanding example of what can be accomplished when people get together voluntarily to help themselves and each other. It is an example of foresight, thrift and cooperation that should be advertised proudly in a world where these qualities of freedom and individual initiative are under attack. The Blue Cross movement today is so well established and widespread that it can stand as a symbol of national achievement, as well as a demonstration of the strength and adaptability of the voluntary system of health care.

For the same reason, any failure of Blue Cross to fulfill its stated purpose would be a serious blow to the concept that free men in a free society can work out the solutions to their own problems without compulsion or regimentation. The effects of such a failure would be felt most within the health field, but I believe they would extend also into other phases of our way of life. We cannot lose any one of our freedoms without threat to the others. And certainly the opportunity to plan for the provision and payment of health services is one of the freedoms we have won and should jealously guard.

Although the public has other sources of protection against the costs of health care, the greatest responsibility for the preservation of the voluntary system rests upon Blue Cross and its companion program, Blue Shield. The growing influence of the nonprofit prepayment movement has created obliga-

tions to all citizens as well as to our own subscribers. And only by recognizing and meeting those obligations can we assure our continued growth in public confidence and acceptance.

It is important, first of all, that we keep the initiative in anticipating and providing the type of benefit that best meets the needs of the communities we serve. Those needs will change through the years, in accordance with changes in hospital and medical practice. They must be measured realistically on the basis of professional opinion, not guided only by what we think the public wants. There is a natural tendency to desire completely "free" health care, but neither a voluntary nor a governmental program can provide that. The bills must be paid. Part of our responsibility, I believe, is to give the public the facts concerning the costs of health services and the possibilities and the limitations of health insurance. Otherwise, we may someday be considered inadequate because of an inability to meet demands that are essentially impracticable.

There is no method by which we can predetermine the public's willingness and ability to pay the cost of health care. We have an obligation, however, to keep that cost as low as possible. And the element of cost in relation to need should be considered as carefully as are the elements of quality and quantity. We cannot be content to follow the socio-economic trends of health care. We have to accept some responsible part in shaping them.

If we are to keep faith with the more than 47,000,000 members who have placed their confidence in Blue Cross, and with the millions who will enroll in the future, our course of action is clearly defined. In addition to the primary requirement of providing adequate benefits at reasonable cost, we must also:

1. *Preserve our basic characteristics.* The original pattern of Blue Cross, as an expression of hospital-community interest in the needs of the patient, was sound. Because of its broad scope, we have been able to grow within that community pattern without distortion of the basic form. We can continue to grow without sacrificing the important concepts of

* Chairman, Blue Cross Commission, and President, Hospital Service Association of Pittsburgh. Reprinted with permission from TRUSTEE, the Journal for Hospital Governing Boards, 7: 12-14, December, 1954.

service that have won public trust. At the same time, we should avoid rigid adherence to minor concepts that might limit our vision and our effectiveness.

2. *Develop a dynamic and expanding program on a national as well as a community basis.* The Blue Cross today is national, the sum of the many community publics served by each individual Plan and hospital. Having proved that we are capable of functioning on a national basis, there will be an increasing demand for that type of program, perhaps someday as a vehicle for proper governmental participation as well as to meet the needs of private industry. It will require our best efforts to achieve the necessary unity of thought and action.

3. *Maintain our integrity of performance and advertising.* Blue Cross has a sales record which must be the envy of many organizations. Yet it is based primarily upon performance, and the public's prompt acceptance of the obvious integrity of the hospital-community approach to the problem. That remains our greatest asset in the development of the non-

profit prepayment program. We may be tempted at times to match the competitive statements and methods that are prevalent today in the health insurance field, but our strength lies in the honesty, simplicity and unselfish aims of the Blue Cross program. Advertising has become essential in many Plan areas, and it is beneficial when it reflects our true nature and purpose. High-pressure promotional schemes might result in a temporary surge in enrollment figures, but by using them we would destroy the public's confidence necessary for future growth.

We have witnessed the early years of a movement which has been inspiring in its progress throughout the little towns and the great cities of our nation. It is a movement founded upon the faith of people who were given an idea and an objective in which they could believe. As long as that faith is kept alive, Blue Cross will continue to grow in its service to the public and to the voluntary system of hospital care—which, like Blue Cross, belongs to the public.

ACADEMY-INTERNATIONAL

Motion Picture Films

A completely revised Fourth Edition of "Professional Films" is now in compilation. (The frequency and number of future insert pages necessary to assure a comprehensive index that is continuously current over a period of years will be determined by the volume of forthcoming productions.) It will include new sections providing biographical data on authors, and information on the audio-visual activities of medical schools, dental schools and graduate teaching centers.

Over 28,000 copies of previous Editions are in use by medical and dental schools, Program Chairman of State and specialty societies, and others here and abroad. AIM provides this valuable audio-visual information to the profession-at-large, without profit, as one of its contributions toward elevating the standards of medical and dental services by expediting the dissimulation of professional knowledge.

You are urged to directly assist by (1) informing film authors of this announcement so that they can write for questionnaires, or (2) providing the film title and full name and address of any film author. Write to the Academy-International of Medicine, 601 Louisiana Street, Lawrence, Kansas.

Ancillary News

NURSING SECTION

M. RUTH MOUBRAY, R.N., *Executive Secretary,*
Maryland State Nurses Association

CHANGES IN THE PRESENT LAWS OF MARYLAND RELATING TO REGIS- TRATION OF NURSES AND LI- CENSED PRACTICAL NURSES, 1955*

Senate Bill No. 90 introduced by Senator Thomas F. Dempsey in behalf of the Maryland State Nurses Association during the regular session of the General Assembly of Maryland this year was amended in the House of Delegates and signed by Governor McKeldin on March 24, 1955. It becomes Chapter No. 89 of the Acts of 1955 and will take effect on June 1, 1955.

The amendment by the House of Delegates defeated the effort of the Maryland State Nurses Association to secure provisions for greater flexibility in regard to qualifications of applicants for registration as professional nurses.

* Submitted by the Maryland State Nurses Association.

Following are the changes in the law which were obtained:

1. Registered Nurses will have their certificates recorded by the Maryland State Board of Examiners of Nurses every second year beginning in January 1956 at a fee of \$2.00.
2. Licensed Practical Nurses will have their certificates recorded by the Maryland State Board of Examiners of Nurses every second year beginning in January 1957 at a fee of \$2.00.
3. Licensed Practical Nurses licensed in other states may obtain licensure in Maryland without examination provided qualifications are met.
4. Registered Nurses may become licensed at age 19 years.
5. Licensed Practical Nurses will pay a fee of \$10.00 for original licensure.
6. Board members will receive compensation of \$10.00 per day.

Book Reviews*

Acknowledgment of all books received will be made in this column, and this will be deemed by us as full compensation to those sending them.

Early Care of Acute Soft Tissue Injuries. Committee on Trauma, American College of Surgeons, Chicago, Illinois, 1954. 192 pages.

This brief manual, dealing with the management of soft tissue injuries, is the work of a committee appointed by the American College of Surgeons and serves as a companion book to *An Outline of the Treatment of Fractures*.

The early chapters deal with the basic principles of examination and tenets of general care. The subsequent chapters cover individual organs or systems and are written by specialists in these fields. The descriptions of injuries and methods of their treatment, while brief, are thorough and specific.

If the reader is not discouraged by the elementary nature of the first few chapters, which actually provide a good review, he will be rewarded by subsequent material. In these days of high speeds and the threat of mass civilian casualties, this book provides vital information for every physician.

W. D. L.

Casimir Funk, Pioneer in Vitamins and Hormones. Benjamin Harrow. Dodd, Mead & Company, 1955, 209 pages.

This biography, "Casimir Funk: Pioneer in Vitamins and Hormones," presents the first full length word portrait of this important scientist. The reviewer can only touch on the highlights of a crowded, achievement-filled career as narrated by the author, a scientific and longtime personal friend of Dr. Funk.

Born of a noted Polish dermatologist who influenced him profoundly, Funk pursued his studies in biochemistry in Berne, London, Paris and other cities throughout the world. It was in Berne, at the age of 20, that he did his first experimental work with hormones and became a Ph.D. This was a stepping stone to his famous studies on vitamins.

In Berlin, working with the great chemist, Aberhalden, Funk published many papers on protein chemistry and metabolism. Here Funk developed one of the first micro-methods for estimating sugar and other substances in the blood, and familiarized himself with spectroscopy and the metabolism of uric acid, as well as malignant tumors.

* The reviews here published have been prepared by competent authorities and do not represent the opinions of any official bodies unless specifically stated.

In London between 1910 and 1915 Funk did research at the Lister Institute, synthesized an amino acid-like substance. Here he met Braddon, who first described to him in detail the dread beriberi. This launched Funk into one of his major achievements and led to the worldwide use of vitamins. Tests by Funk showed that beriberi was not an amino acid deficiency, but a lack of a "something" present in rice polishings.

Fascinating is the way Funk toiled week after week, and month after month, developing polyneuritis in pigeons (comparable to beriberi in humans) by feeding them polished rice, administering rice polishings or ground yeast and watching the polyneuritis disappear. By assiduous fractionation he finally obtained fractions A and B, fed a polyneuritic pigeon fraction A and saw it dying, gave it fraction B and watched it recover. On he went subdividing fraction B, discarding non-effective fractions, subdividing again and again until, at last, he obtained a concentrated substance which proved to be thiamine or vitamin B₁, the anti-beriberi factor.

Funk then announced that more than one specific substance existed and was shortly proven right. He invented the name "vitamine" for such substances—"vita" indicating life, and "amine" for amine which he wrongly believed it to be. It was only after thirty years of bitter opposition that the word "vitamin" (the final "e" dropped) was adapted and became an important part of nutritional history.

In 1912 Dr. Funk projected his bold hypothesis which "laid the very foundation stone for the entire subject of vitamins." He proposed that there were at least four vitamins. His conclusions that such diseases as beriberi, pellagra, rickets and scurvy were due to deficiency of specific chemical substances marked a milestone in medical science. A book on vitamins by Funk was translated into many languages.

Funk came to the United States shortly after the outbreak of World War I. With a collaborator he achieved a concentrated fraction of vitamins A and D, later marketed as Oscodal, the first vitamin product accepted by the A.M.A. Working with Dr. Louis Freedman, Funk devised methods still used today to measure bacterial growth in yeast.

In 1936 Dr. Funk joined the U. S. Vitamin Corpora-

tion as research consultant and has remained with the company since. For this company he developed the production of nicotinic acid and niacinamide. His biographer notes that "In the laboratories of the U. S. Vitamin Corp. Casimir developed a theory he had first voiced several years before in Paris: the interrelationships of vitamins and minerals: this led to the preparation of 'Vi-Syneral'."

For many years Funk has been "occupied with the broad field of cancer and its possible treatment." In 1947

the Funk Foundation for Medical Research was set up. Here the Doctor has worked indefatigably in the cancer field. Yet he has found time to delve into pre-diabetic detection and new anti-ulcer therapy.

Over 150 scientific papers by Funk and collaborators have been published throughout the world and listed by Harrow. This shy, gentle, charming man, "who has always strived to work for the betterment of humanity" is, at 71, "at the height of his intellectual vigor."

A. K.

FEDERAL AID FOR LABORATORY CONSTRUCTION HEARINGS RESUMED

The AMA Washington Letter, No. 84-15

Hearings on this legislation for a three-year, \$90 million program of federal matching grants for research facilities will resume next Wednesday (April 13) before the Health Subcommittee of the Senate Labor and Public Welfare Committee. Surgeon General Scheele of the U. S. Public Health Service will testify in favor of the bill, which is not an Administration measure. At two days of hearings (March 31 and April 1) the Committee heard a number of witnesses representing research institutions and associations interested in research. All favored the legislation, although some suggested minor changes. In general, they made these arguments: (1) Much more research can be justified for economic as well as for humanitarian reasons; (2) Voluntary organizations are concerned mainly with patient care and cannot raise the large amounts of money needed to expand and rehabilitate the research plant; (3) Experience has shown that when the federal government leads the way with grants non-federal sources follow through with several times more money than contributed by the U. S.

Witnesses included: Dr. James S. Adams, director, American Cancer Society; Dr. Gardner Murphy, research director, Menninger Foundation; Dr. Sidney Farber, director, Children's Cancer Research Foundation, Boston; Dr. Cornelius P. Rhoads, Sloan-Kettering Institute for Cancer Research; Dr. Cornelius H. Traeger of Roosevelt Hospital, New York; Dr. Louis N. Katz of Michael Reese Hospital for Cancer Research, Chicago; Dr. Lee Clark, director and surgeon in chief of the M. D. Anderson Hospital for Cancer Research, Houston; William MacCracken, representing the Optometric Foundation.

Although the American Medical Association was not represented by a witness, Dr. George F. Lull, Secretary-General Manager, informed the Committee that the Association is opposed to the legislation. The AMA strongly desires to improve medical research, Dr. Lull declared, but it objects to the "whole system of federal subsidy unless the inauguration of a temporary program is necessary to meet a demonstrated emergency." The letter also made the following points:

1. It has not been demonstrated that construction alone will materially improve research. States and local communities would have no voice in the development of "a planned and integrated system of laboratory and other research facilities," as the federal administrator would make the awards.

2. States and communities should support welfare and educational projects within their own laws and customs, and "we see no profit in contributing money to the federal treasury and having a fraction of it filter back encumbered by numerous conditions imposed by a federal administrator."

3. Federal taxation can ultimately so deplete state and local revenue resources and so dry up private funds that federal funds will be the only money available to institutions, which "will soon become totally dependent on and subject to the will of a federal administrator."



Woman's Auxiliary Medical and Chirurgical Faculty



MRS. JOHN G. BALL, *Auxiliary Editor*

THIRD ANNUAL CONVENTION FOR FUTURE NURSES OF MARYLAND

MRS. JAMES KERR*

The Third Annual Convention for Future Nurses of Maryland was held on Saturday, March 12, 1955, at Eastern High School, 33rd Street and Loch Raven Boulevard, in Baltimore, Maryland, with approximately 275 girls in attendance. Between 10:00 and 10:30 registration of delegates and members was held (non-members registered separately). Literature was distributed at that time. Mrs. Gerald LeVan, President-elect of the Auxiliary, presided and introduced guests. The Reverend Mr. Vernon Miller gave the invocation. Gay Kaiser, first president of Future Nurses of Maryland, welcomed future nurses and guests and introduced present officers. This was followed by a Presentation of Awards by Mrs. LeVan to contest winners in the clubs. The contest awards consisted of cash prizes donated by Mrs. D. D. Caples; \$15.00 first place, \$5.00 second, \$5.00 third, for the name for State "NEWSLETTER" and the same amount for the most suitable "Insignia" for the paper. This was done in order to have each club in Maryland in better contact with each other during the coming years. Wicomico County won first prize for the name, "CANDLELIGHT EXPRESS." Forest Park High won the prize for the insignia.

Miss Alice Sundburg, President of Maryland League for Nursing Education, presented the clubs with their Charters from the State.

Mrs. LeVan introduced Mrs. Florence S. Burns, Field Co-ordinator and Assistant Director of New York, and Miss Muriel Henry, National League of Nursing, who came to observe and give an inspirational talk to the group. This was followed by installation of new officers of Future Nurses of Maryland. For the year 1955-56: President, Idella Tolson, Dundalk High; Vice President, Beth Bahr, Howard County High; Recording Secretary, Pat Caple,

* Nurse Recruitment Chairman.

Westminster High, Finksburg, Md.; Treasurer, Barbara Steele, Damascus High; Historian, Judy Bashore, Sykesville High.

"A Message to Future Nurses of America" was the topic of a speech given as the main address by Miss Gene Garrick, R.N., Nursing Education Department, Johns Hopkins Hospital.

Between 12:00 and 1:00 p.m., we adjourned for lunch which the girls brought. Drinks were donated by Royal Crown Cola Company. The entire afternoon was devoted to exhibits in various classrooms by Maryland hospitals. Sixteen academic and two practical nursing schools participated. These consisted of slides, movies, posters, literature, with students and graduates in uniform. One particular exhibit depicted a hospital wing in miniature made up of doll size furniture and pipe cleaners for patients; even some treatments were being given. This was done by the students themselves.

There was much favorable comment expressed and the enthusiasm was quite apparent. Thus, I would say it was a successful and enjoyable day for all.

WOMAN'S AUXILIARY TO THE MEDICAL AND CHIRURGICAL FACULTY OF THE STATE OF MARYLAND OFFICERS FOR 1955-56

The following officers for the year 1955-56 were elected at the Annual Meeting, April 21, 1955:

President	Second Vice-President
Mrs. Gerald W. LeVan	Mrs. E. Paul Knotts
Box 278	406 Market Street
Boonsboro	Denton
President-Elect	Third Vice-President
Mrs. Homer U. Todd	Mrs. John O. Robben
901 W. University Parkway	3709 Calvend Lane
Baltimore 10	Kensington
First Vice-President	Fourth Vice-President
Mrs. A. Austin Pearre	Mrs. Conrad Acton
304 Upper College Terrace	1208 St. Paul Street
Frederick	Baltimore 2

Treasurer

Mrs. Emil G. Bauersfeld
3916 Virgilia Street
Chevy Chase 15

Recording Secretary

Mrs. Hans W. Constadt
500 Stoneleigh Road
Baltimore 12

Corresponding Secretary

Mrs. Owen H. Binkley
444 Summit Avenue
Hagerstown

Parliamentarian

Mrs. Albert E. Goldstein
3505 N. Charles Street
Baltimore 18

Finance

Mrs. Page C. Jett
Prince Frederick

Doctor's Day

Mrs. Thos. A. Christensen
6905 Baltimore Boulevard
College Park

The President, Mrs. Gerald LeVan, takes pleasure in announcing the appointment of the following ladies to committees:

Standing Committees**Organization**

Mrs. Homer U. Todd
901 W. University Parkway
Baltimore 10

Publications

(Bulletin & Today's Health)
Mrs. John O. Robben
3709 Calvend Lane
Kensington

Membership

Mrs. E. Roderick Shipley
6206 Blackburn Lane
Baltimore 12

Press and Publicity

Mrs. Thomas C. Webster
4336 N. Charles Street
Baltimore 18

Members-at-Large

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406 Market Street
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Mrs. Ernest F. Poole
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Program

Mrs. Charles H. Williams
1632 Reisterstown Road
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Mrs. E. Ellsworth Cook, Jr.
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Baltimore 18

Public Relations

Mrs. John G. Ball
7936 Georgetown Road
Bethesda 14

Revisions and Resolutions

Mrs. George H. Yeager
212 Ridgewood Road
Baltimore 10

Special Committees**Nurse Recruitment**

Chairman: Mrs. James F. Kerr
Damascus
Co-Chairman: Mrs. D. Delmas Caples
38 Chatsworth Avenue
Reisterstown
Co-Chairmen: Mrs. Arthur Baptisti, Jr.
(West Area) 668 Orchard Road
Hagerstown
Mrs. Frank F. Lusby
1601 Fountain Head Road
Hagerstown

Mental Health

Mrs. Irving J. Taylor
3500 Southvale Road
Baltimore 8

Amer. Med. Education Foundation

Mrs. Conrad Acton
1208 St. Paul Street
Baltimore 2

Hospitality

Mrs. A. Austin Pearre
304 Upper College Terrace
Frederick

Civil Defense

Mrs. David S. Clayman
6311 Baltimore Avenue
Riverdale

Convention Arrangements

Mrs. Thomas E. Wheeler
Liberty & Clifmar Roads
Randallstown 7

Auxiliary Editor

(State Med. Journal)
Mrs. Albert E. Goldstein
3505 N. Charles Street
Baltimore 18

Co-Editor

Mrs. H. Melvin Radman
Esplanade Apts.
Baltimore 17

CIVIL DEFENSE COORDINATING BOARD FORMED BY PRESIDENT**The AMA Washington Letter, No. 84-16**

President Eisenhower on April 9 formed a Civil Defense Coordinating Board with Civil Defense Chief Val Peterson as chairman. The board is designed to draw together all the civil defense activities of federal agencies. Since Federal Civil Defense headquarters were moved from Washington to Battle Creek, Michigan, coordination has not been as good as Mr. Peterson would like it. Heads of these departments have been asked to appoint a top-level representative to the board: Health, Education and Welfare; Defense, Commerce, Treasury, Interior, Agriculture, Post Office, and Justice; also Office of Defense Mobilization, Federal Power Commission, Veterans Administration, Atomic Energy Commission and General Services Administration.

AMA OPPOSES DOCTOR DRAFT, SUPPORTS TWO OTHER MILITARY BILLS

The AMA Washington Letter 84-18

The American Medical Association has registered with the House Armed Services Committee its opposition to a two-year extension of the Doctor Draft Act, scheduled to expire next June 30. The Association said it was in favor of two other bills before the committee, for military scholarships in civilian medical schools and for continuation of the \$100 per month equalization pay for doctors.

The AMA's witnesses were Drs. Walter B. Martin, *president*; Reuben B. Chrisman, Jr., member of the Committee on Legislation and of the House of Delegates; and Edward Turner, secretary of the Council on Medical Education and Hospitals. Dr. Martin testified mainly on the Doctor Draft extension bill and Dr. Chrisman on this and on equalization pay, while Dr. Turner confined his testimony to the medical scholarship bill. They made the following points:

Doctor Draft: Emergency conditions responsible for this act in 1950 no longer exist, and the discriminatory law should be allowed to expire. Physicians brought into service under the doctor draft are being used to greater and greater extent to care for civilian dependents of military personnel. The Armed Forces can do a great deal more in the way of efficient use of their physicians; the AMA in the past has suggested creation of two advisory groups in this field. The Health Resources Advisory Committee of the Office of Defense Mobilization believes that "if mobilization continues at its presently announced levels" the Doctor Draft will not be needed; the Hoover Commission Medical Task Force concludes that the law is not necessary. Despite a decrease in the ratio of physicians to troops, the health of the military personnel now is at an all-time high.

Military Scholarships: Scholarships have been employed successfully by various states to bring young physicians to rural areas. This medical scholarship program would "expose a large number of young physicians to inside view of a military medical career. Those who are satisfied can be expected to remain . . ." And those who stay in service only for the required time will help relieve shortages. The AMA proposes three safeguards: (a) students not to be approached until fully matriculated, (b) no special consideration regarding scholarship, behavior or ethics for the scholarship student, and (c) scholarships not to exceed 5% of school enrollment, or 5% of any class.

Equalization Pay: Under present law all physicians in uniform who voluntarily accepted a reserve commission prior to induction, receive the \$100 per month equalization pay. This pay was provided because physicians, due to their longer educational training, can look forward to smaller lifetime incomes in military careers than other officers. The bill proposes to give this extra pay only to men who have no obligation under the regular draft, or who agree to serve beyond the required draft service of two years. The AMA maintains that this is "a major departure from the original principle of the act," and a "negative approach." "Inducement to extend the two-year tours . . . should be sought in other areas," the Association's statement said. The AMA urged extension of the law without change.

The American Dental Association also testified in opposition to extension of the Doctor Draft Act, declaring that the Armed Forces will make no real effort to use professional manpower efficiently while they can rely on the special draft law.